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INDEX TO VOLUME X.

PAGE.

Abscess, Hepatic, a case of.....412
" Urinary.....716
Acid Benzoic, Hypodermic injections of, in Uremic Convulsions...373
" Boracic, Ointment,.....443
" Carbolic or Salycilate of Sodium—the inutility of treating yellow fever with..... 284
" Carbolic, Poisoning by.....658
" Carbolic—the injection of, in the treatment of Hydrocele...447
" Hydrobromic.....454
" Salicylic.....305
" Sulphurous, in Turberculosis..225
" Sulphurous, in Typhoid Fever.294
" Sulphurous, in Treatmeut of Gonorrhœa.....381
Acne Roacea, Treatment of.....461
Aconite, in Treatment of Acute Dysentery.....443
Ani Fissura.....472
" Pruritus.....309
Address, Delivered before the Orleans Parish Medical Society, March 30, 1883..... 801
Ague, Willow Leaves in.....467
Air-Passages, Foreign bodies in the.....368
Albuminuria and Nephritis.....737
" in Phthisis.....472
Alcohol.....457
" The Mortality Referable to..715
" Coffee, as an Antidote to.....709
Amenorrhœa.....402
American Origin of Syphilis.....460
Ammonia, Carbonate of, as a Stimulant.....454
Amyl, Nitrate of, Use of in Parturition.....454
Anæsthesia in Obstitrics.....955
A New Disease.....934
Anæsthetics, on the use of during labor.....976
Angina Facium, Ether Inhalations in.....463
Animals and Man, Injections of solution of Iron and Salts into the Peritoneal Cavity of.....289
Anæmia, Idiopathic or Pernicious, associated with Jaundice....469

PAGE.

Annual Commencement, Medical Department of the University of Louisiana—Graduates....889
Antiseptic, a New.....558
Ante-Partem Hemorrhage.....604
Arsenic, the Therapeutics of.....573
Arsenici, Liquoir, in Diabetes.....799
ARTAUD, FRANK E.
Amenorrhœa.....408
Aspergilina—Ootomycosis.....607
Astragalus, Dislocation of.....557

Bacillus of Tuberculosis..... 139
" Tuberculosis..... 544-636
Bacteria, Classification of..... 652
BALFOUR, F. M. M. D,
death of..... 383
Bandaging the arm as a substitute for Blood-letting..... 367
Batracosis..... 525
BEMISS, S. M.
Chapters from report of Yellow Fever Commission of 1878..... 321
Benzoic Acid—Hypodermic injection of, in Uremic Convulsion..... 373
Beriberi..... 561
BICKHAM, C. J.
Phlegmasia Alba Dolens.... 259
Bile and Digestion..... 161
Bismuth, Leivgated—Sub Nitrate of, in treatment of Varicose Ulcers of the Leg..... 583
Bladder, Diagnostic importance of Rectal examination in Stone of the..... 557
Blood-letting, Bandaging the arm as a substitute for..... 367
Boracic Acid Ointment..... 443
BORCHIUN, L. E.—A case of Hepatic Abscess..... 412
Brain—Guiteau's..... 559
" On percussion of the Skull in the diagnosis of the.. 70
Breakbone Fever—the epidemic of 637
Brights Disease (See Kidneys)....
Bromati—Liqnoir Arsenici, in Diabetes 799
Broths and Soups—Virchow..... 295

PAGE.
Calcium — Sulphide, in Suppuration 223
Carbolic Acid or Salicylate of Sodium, the inutility of treating Yellow Fever with.... 284
" The injection of, in the treatment of Hydrocele..... 447
" Poisoning by 658
Carbonate of Ammonia as a stimulant..... 454
Caffeine, in the treatment of Strangulated Hernia..... 293
Capsules—Renal, fibroma of..... 559
Cause of Dark Complexton of Chicago ladies..... 449
Cerebral Automatism..... 977
Cerebro Spinal Meningitis—Analysis of nine cases of, in Charity Hospital..... 855
Cervix, Uteri, Laceration of, its causes, Pathology Diagnosis and treatment..... 819
CHAILLÉ, STANDFORD E.
Inundations of New Orleans and their influence on its health..... 20
" Inundation of Louisiana — their influence on health.. 893
" Yellow Fever, or "Yellow Jaundice" in New Orleans in 1882..... 194
" Yellow Fever prevalence in Havana..... 721
" Preventive measures against Yellow Fever..... 96
Charcoal, Powdered, in treatment of Infantile Diarrhœa 382
Child, how to examine a sick 130
Cholera Infantum..... 464
Chorion, Hydatidiform—Diseases of the..... 714
Chloral and Tincture of Iodine... 224
" Hypodermic injection of, in Uremic Convulsions.. 373
" Intravenous injection of, for Varicocele 380
Chloroform, Morphia hypodermically as an adjunct to..... 384
" The administration of 456
Cirrhosis of the Liver, and Bright's Disease, Prof. De Renzi's treatment of 648
CLAY, D. M.
Laceration of the Cervix-Uteri, its Causes, Pathology, Diagnosis and treatment 819
COOK, T. A.
Observations upon Congestive fever 416
PAGE.
Coffee as an antidote to Alcoholism 709
Colon, Irrigation of 362
Congestive Fever, observation upon 416
Consumption (see Phthisis).
Contagious Dieases, duration of, isolation of, subjects of..... 372
Convulsions, Puerperal, Subcutaneous injection in... 379
" Nitro Glycerine in the treatment of Heart Disease and Puerperal ....., 465
" Infantile 445
Cornil on Hypodermic injections.. 446
Corn-Silk, Extract of, Anæsthetic and Diuretic action of..... 587
Coryza-Acute 548
Correspondence—
R. N. Girling 769
I. L. Crawcour, M. D..... 122
F. C. Calvert & Co. 123
Alfred Perry, M. D..... 123
Thos. J. Henderson, M. D... 281
N. P. Reeves, M. D..... 475
L. H. Von Gohren, M. D 544
Cod Liver Oil, another substitute for..... 559
Cotton Seed, in Spasmodic Croup. 450
Cramp, Writer's 714
Croup, Spasmodic, Cotton Seed in. 450
" Treatment of, with Hydrargyra Sulphas Flava..... 453
CRAWCOUR, I. L.
The Therapeutics of Arsenic 573
Cystitis—Chronic, Reliquet's injection for..... 634
" Of ten years' duration, following Stricture, cured by one injection of solution of Nitrate of Silver 357
" Tepid water and solution of Quinine in 465
Cysticerci, Autogenesis of 634

DAVIDSON, J. P.
Perytiphlitis..... ..206
DAY, RICHARD H.
Review of the Surgical Treatment of President Garfield. 81
" Surgical Treatment of Wounds.....919
Deafness and hearing of Boiler-Makers in a Noise.....633
DELL'ORTO, JOHN.
Professor De Renzi's, Treament of Cirrhosis of the Liver and Bright's Disease.....648
" On Albuminuria and Nephritis.....737

PAGE.
Diabetes, Liquor Arsenici Bromati in....799
" Iodoform in....448
Diarrhœa, Intermittent, caused by Quinine....680
" Infantile, treated by Powder-Charcoal....382
Digestion and Bile....161
Digitalis, the Indications for the use of....792
Diphtheria....373
Disease—Heart, Nitro-Glycerine in. 55
" Hip-Joint, Cure of.... 55
" Contagious, Duration of, Isolation of Subjects with..372
" Nervous Transmission of, through Heredity....173
" Micro-Organisms and....308
" The Breeding and Diseases of Elephants.... 56
" A New....309
Dislocation of the Astragalus....557
Drug Store of the Future....298
Dysentery, Acute, Treatment of, with Aconite....443
" Treatment of.... 713
" Chronic, Treatment of by large Enemata of Nitrate of Silver....380

EDITORIAL.
" Army Medical Museum and Library....385
" Change of Editors....473
" Charity Hospital, election of Officers for 1883-4....854
" Female Physicians....538
" McDaniel's Method of Artificial Respiration....753
" Pharmaceutical Exhibition..853
" Salutatory....536
" Ship Island Quarantine Station....310
" Small-pox....755
" Supplementing National Board of Health Bulletin....386
" Synopsis of Proceedings of the American Medical Association.... 73
" Tracing Contagion....757
" The Relation of Syphilis to Rickets....838
" The Small-pox Problem.... 843
" The Louisiana State Medical Society....848
" The Sanitary Council of the Mississippi Valley.... 850
" The Classics versus Science.. 667
" The New Pharmacopœia.... 672
" The Ethical Problem.... 595
" Yellow Fever in New Orleans 311
" Yellow Fever in New Orleans in 1882....146-227

PAGE.
Electric Light, the Hygienic value of.... 375
Elephants, the Breeding and Diseases of.... 56
ELLIOT, JOHN B.
Exercise as a Physiological Necessity.... 498
Eneuresis—Nocturnal, treated by Voltaic Alternatives.... 717
Enteric Fever—Indian.... 716
Epilepsy, Sodium Nitrite in the treatment of.... 438
Ephthelioma of the Rectum, Surgical treatment of.... 835
Ergot, in Typhoid Fever.... 464
Eruptions caused by Quinine.... 370
Erysipelas, treatment of....555-556
Errata....79-159-357
Ether, subcutaneous injection of, in Pneumonia....449-374
" Inhalation in Angina Facium.... 463
Ethical Problem.... 513
Exercise as a Physiological necessity.... 498
Extracts from an Old History of Louisiana.... 241
Eye, the use of Iodoform in the treatment of diseases of the.. 798

Facium—Angina, Ether inhalations in.... 463
Femur—Compound Fracture of, Erysipelas, Pyæmia—Amputation of the thigh: subsequent Exarticulation at the Hip: Complete recovery.... 717
Fever—Breakbone, the epidemic of, ... 637
" Congestive, observations upon.... 416
" Enteric, Indian.... 716
" Hay.... 714
" Intermittent — Stichegloff on Faradisation of the Spleen in.... 384
" Malarial, some points in.. 296
" Typhoid, Ergot in.... 464
" Typhoid, some remarks on a peculiar type.... 263
" Typhoid, Sulphurous Acid in.... 294
" Yellow, Treatment of by the Permaganate of Potash.... 445
" Yellow, the inutility of treating with Salicylate of Sodium or Carbolic Acid.... 284
" Yellow, Prevalence in Havana.... 721
" Yellow, the diagnosis of.... 281

PAGE.

Fever—Yellow, Chapters from Reports of Yellow Fever Commission, 1878..... 321
" Yellow, preventive measures against..... 96
" Yellow, or "Yellow Jaundice" in New Orleans in 1882..... 194
" Temperature, some new remedies which reduce the..... 665
Finger—Syphilitic, infection of, in medical men 54
Fissura Ani 472
Fœtal Head, case of retained, separated from the body during labor..... 605
Foreign body in Larynx—Tracheatomy, recovery..... 765
Forehead, the noble 302
Formulary—
Anti-Neuralgic mixture..... 294
Acute Bronchitis 294
Bromide of Potassium injection for Gonorrhœa 221
Emulsio Olei Ricini 294
Gueneau De Mussey's formula for Whooping Cough... 294
Powder for Hemicrania and Nervous Headache..... 293
Treatment of Whooping Cough with the Benzoate of Sodium 221
Uterus Granulations..... 221
Liniment for Pruritus Vulvæ 221
Fracture of the Skull, compound. 119
" of the Femur, Erysipelas, Pyæmia, amputation of the thigh; subsequent exarticulation at the hip: complete recovery..... 717
Fumigation and Disinfection of Vessels and Cargoes, with special reference to the Mississippi river quarantine.... 641

Gall-Stones successfully treated with Olive Oil..... 676
" Detection of, by the exploring needle ... 297
Gallo-Roman Remains..... 225
Garfield, James A., President, review of the surgical treatment of..... 81
GASTON, J. B.
Annual message of the President of the Alabama State Medical Society 38

PAGE.

GASTON, J. McF.
Observation on the Etiology, Pathology and treatment of Rheumatism 724
Gelatine preparations and their uses 273
Genito-Urinary organs, seven cases of reflex affections of the.... 759
Gestation prolonged..... 309
Glycerine-Nitro, in Heart disease. 55
" Who introduced?..... 304
" In Therapeutics 64
" Nitro 144
GODFREY, JOHN.
Anniversary address before the New Orleans Medical and Surgical Association, December 2, 1882 482
Gonorrhœa, treatment of, by injections of Sulphurous Acid, diluted with water 381
Gout and an Animal Diet 296
Graduates—Medical Department, University of Louisiana, Annual Commencement, 1882-3 889
Graves' Disease 467
Guiteau's Brain 559
GULL, SIR WM., on Scientific Medicine..... 704
Gunshot Wound of Lung and Spinal Cord..... 601

Hæmophilia 711
HARGIS, R. B. S.
The Genius of Medicine—an Address..... 1
HART on the propagation of Typhoid Scarlatina and Diphtheria by Milk 64
Hay Fever 714
Hip-Joint Disease, cure of..... 55
Headaches—Frontal—Minimum doses of Iodide Potassium in. 66-444
Health, Inundations of New Orleans and their influence on .. 20
" Inundations in Louisiana and their influence on.. 893
Hearing and Deafness of Boiler Makers in a noise 633
Heart Disease, Nitro-Glycerine in the treatment of, and Puerperal Convulsions..... 467
" Nitro-Glycerine in..... 55
Hemorrhage, Puerperal 785
" Pulmonary, a simple means of checking, with shawl straps 795
" Ante-Partum..... 604

PAGE.
HENDERSON, THOMAS J.
The Diagnosis of Yellow Fever 281
Hepatic Abscess, a case of 412
Hernia, Strangulated, Cafeine in the treatment of 293
HERRICK, S. S.
The Responsibility of Criminal Lunatics 401
" Some debatable points in Small-Pox. I. Origin of Small-Pox. II. Comparative merits of Bovine and Humanized Virus. III. Compulsory Vaccination.. 810
Homeopathy as professed and as practised..... 219
HOLT, JOSEPH.
The Ethical Problem 513
Hydatidiform, diseases of the Chorion..... 714
Hydrargyra, Sulphas Flava, treatment of Croup with..... 453
Hydrobromic Acid..... 454
Hydrocele, treatment of, by the injection of pure Carbolic Acid 447
Hydrophobia from fear 467
Hypophosphites, Phosphates and Lactophates, relative value of..... 277
Hypodermic injection of Mercury in Syphilis 446
Hysteria, treatment of aggravated and certain allied forms of Neurasthenic disease..... 789
Hysteria, Visceral, a brief digest of Dr. Huchard's Clinical lectures, etc..... 659
Hysteria in Males.....
Hysteria, treatment of..... 666
Hystero-Laparatomy during Pregnancy from a false diagnosis,
Hysterical Contraction, a case of, cured by the administration of Fulimant Pills (Mica Panis)..... 441

Idiopathic or Pernicious Anemia, associated with Jaundice... 469
Icterus Neonatorum..... 216
Incision of the Trigone..... 459
Indian Enteric Fever..... 716
Infancy—Narcotism in..... 226
Infants, treatment of Oxyuris Vermicularis and Lumbricoid Worms in..... 636
" Intussusception in..... 468
Infantile Diarrhoea, treated by powdered charcoal..... 382
Convulsions..... 445

PAGE.
Inhalation of Medicated Vapors in diseases of the respiratory organs 455
Insane Criminals, what should be done with..... 364
" Colony treatment of..... 134
Insanity and Divorce..... 223
Intermittent Diarrhœa cured by Quinine..... 680
" Diarrhœa caused by Quinine..... 680
" Fever, Stichegloff on Faradisation of the Spleen in.... 384
Intravenous injection of Chloral for cure of Varicocele..... 380
Intussusception in Infants..... 468
Inundations, in New Orleans, and their influence on the Health 20
" In Louisana, their influence on Health..... 893
Iodide of Potassium, minimum doses of, in Frontal Headaches.....66-73-443
" Of Lead Ointment, in treatment of Puerperal Mti-sa tis..... 635
Iodine, two hundred and fifty cases of Malaria treated with tincture of..... 368
Tincture of and Chloral. 224
Iodoform, the use of in Tubercular affections..... 466
" In Diabetes..... 448
" The use of, in the treatment of the disease of the eye.. 798
" Intrenal administration of, in Constitutional Syphilis. 631
Impregnation, Before the Menstrual Epoch.....609
Ipecacuanha, the use of during labor.....475-306
Irrigation of the Colon.....362
Iron and Salts, Injections of Solution of, into the Peritoneal Cavity of Animals and Man.289
" Danger of Using Cooking Utensils of Galvanized....542
Jaundice, Idiopathic, or pernicious Anemia associated with..469
" Yellow, or Yellow Fever in New Orleans in 1882.....194

Kidney, Bright's Disease, and Cirrhosis of the Liver, Prof. De Renzi's treatment of.....648

Labor, On the Use of Ipecacuanha During.....306-475
Laceration of the Cervix-Uteri, its Causes, Pathology, Diagnosis and Treatment of.....819

PAGE.
Lactophosphates, Hypophosphites and Phosphates, Relative Value of 277
LASCAR, FERDINAND.
Relative Therapeutical Value of Phosphates, Hypophosphites and Lactophosphates..... 277
Larynx, Foreign Body in—Tracheotomy—Recovery..... 765
LAYTON THOMAS.
" Anniversary Address delivered before the Orleans Parish Medical Society March 30, 1883..... 801
" On the Transmission and Transformation of Nervous Diseases through Heredity. 173
" Extracts from an Old History of Louisiana..... 241
Lemons, the Elixir of Life..... 307
Leprosy, Notes on..... 126
" Two cases of..... 861
" The Parasite of..... 220
LEWIS, GEORGE W.
Compound Fracture of the Skull.. 119
Ligation of Umbilical Cord..... 371
Liquor Arsenici Bromati in Diabetes.....
Listerine..... 72
Liver, Cirrhosis of and Bright's Disease, Prof. De Renzis' Treatment of..... 648
Lunatics, Criminal, the Responsibility of..... 401
Lumbricoid, Worms in Infants, Treatment of..... 636
" Expulsion of four hundred and forty-one within thirty-four days..... 702
Lung and Spinal Cord, Gunshot Wound of..... 601

Malaria, two hundred and fifty cases treated with the Tincture of Iodine..... 368
Malarial Fever, some points in.... 296
Males, Hysteria in..... 749
Malpractice, another suit..... 470
Man and Animals, injection of solution of Iron and Salts into the Peritoneal cavity of.... 289
MATAS, RUDOLPH.
Beriberi. 561
Matches, poisoning by phosphuretted..... 589
Mastitis, Puerperal, treatment of, by Iodide of Lead ointment. 635
Measles in the adult, differential diagnosis. Simple Roseola-Variola, prognosis and complications..... 527

PAGE.
Micro-Organisms and Disease 308
Medicine, case illustrating antagonism of..... 541
" The Genius of, an address 1
" Sir Wm. Gull on Scientfic Medicine in general practice..... 704
" Report of Chairman of Louisiana State Medical Society of its Standing Committee on State Medicine 929
Medicated Vapors, inhalation of, in diseases of the respiratory organs..... 455
Midwifery, reckless..... 472
Medical Items—
Treatment of Erysipelas .555-556
Diagnostic importance of Rectal examination in Stone of the Bladder..... 557
Dislocation of the Astragulus 557
A new Antiseptic..... 558
Acute Coryza 558
Guiteau's Brain 559
Another substitute for Cod Liver Oil 559
Fibroma of Renal Capsules.. 559
Amende Honorable 559
The Sterility of women..... 779
Iodoform in diseases of the Eye 798
Liquor Arsenici Bromati in Diabetes 799
Three successful cases of Spine Grafting, etc..... 625
On a modification of Sponge Grafting 628
The internal administration of Iodoform in Constitutional Syphilis 631
Boiler Makers' Deafness and and Hearing in a noise.... 633
Reliquet's injection for Chronic Cystitis 634
Autogenesis of Cysticerci ... 634
Treatment of Puerperal Mastitis by Iodide of Lead ointment..... 635
Baocillus Tuberculosis..... 636
Treatment of Oxyuris Vermicularis and Lumbricoid worms in Infants..... 636
The Louisiana State Medical Society..... 636
Expulsion of four hundred and forty-one Lumbricoid worms within thirty-four days..... 702
Sir Wm. Gull on Scientific Medicine in general practice..... 704

PAGE.
Vicarious Menstruation..... 705
Tubercle Bacillus and Phthisis..... 706
The use of Mullein Plant in treatment of Pulmonary Consumption..... 708
Coffee as an Antidote to Alcoholism..... 709
Pasteur & Koch..... 710
The newly discovered Prophylactic Vaccine for "Rouget" or Pneumo-Enteritis of the Pig..... 710
Hæmophilia..... 711
Journal of the American Medical Association..... 712
An Army Medical Board.... 711
Treatment of Dysentery 713
The Hammond Prize..... 713
Hay Fever..... 714
Hydatidiform Diseases of the Chorion..... 714
Gaillard's Medical Journal.. 714
Writer's Cramp..... 714
The Mortality referrable to Alcohol..... 715
Urinary Abscess..... 716
Nocturnal Eneuresis treated by Voltaic Alternatives... 717
Compound Fracture of the Femur, Erysipelas, Pyæmia, Amputation of thigh, etc.,..... 717
Official list of changes of stations and duties of Medical Officers of the U. S. M. Hospital service..... 718
The Louisiana State Medical Society..... 719
International Medical Congress..... 719
Puerperal Hemorrhage..... 785
Treatment of Aggravated Hysteria and certain allied forms of Neurasthenic disease..... 789
The indications for the use of Digitalis..... 792
A simple means of checking Pulmonary Hemorrhage.. 795
Ulcers, their treatment with transplantation of raw meat..... 796
The use of Iodoform in the treatment of Diseases of the Eye..... 798
Medical Department, University of Louisaina, Graduates..... 889

PAGE.
Meningitis, Cerebro Spinal Analysis of nine cases of in Charity Hospital..... 855
" Tubercular, Report of Cases of, Treatment and Recovery..739
Mercury, Cornil on Hypodermic Injections, in Syphilis..... 446
Menstruation, Vicarious..... 705
Meteorlogical Report:
For month of May, 1882..... 80
" " June, " 160
" " July, " 240
" " August, " 320
" " September, " 400
" " October, " 480
" " November, " 560
" " December, " 640
" " January, 1883.....720
" " February, " 800
" " March, " 892
" " April, " 980
Morphia, Hypodermically as an adjuvant to Chloroform.....384
MORTUARY REPORT:
Fr'm May 20, '82, to June 10, '82 80
" June 17, '82, to July 8, '82.. 160
" July 15, '82, to Aug. 12, '82. 240
" Aug. 12, '82, to Sept. 9, '82.. 320
" Sept. 16, '82, to Oct. 7, '82.. 400
" Oct. 14, '82, to Nov. 4, '82.. 480
" Nov. 11, '82, to Dec. 9, '82.. 560
" Dec. 16, '82, to Jan. 13, '83. 640
" Jan. 20, '83. to Feb. 10, '83. 720
" Feb. 11, '83, to M'rch 17, '83 800
" M'rch 24, '83, to Ap'l 21. '83 892
" April 28, '83, to May 19, '83 980
Mortuary report of the State of Texas, during the year 1882 637
Mortality, referable to Alcohol.... 715
Mullein Plant, the use of, in the treatment of Pulmonary Consumption..... 708

Narcotism in Infancy..... 226
New method of Embalming bodies and preserving Tissues..... 57
Nephritis and Albuminuria 737
Nitrate of Silver in treatment of Chronic Dysentry..... 380
Nitrite-Sodium, in the treatment of Epilepsy..... 438
" of Amyl, use of, in Parturition..... 454
Nitro-Glycerine..... 144
" In Therapeutics... 64
" Who introduced.. 304
" In Heart disease.. 55
" In Heart disease and Puerperal Convulsions.... 465

Nocturnal Enuresis, treated by Voltaic Alternatives..... 717
Nux Vomica, poisoning by an overdose of..... 543

Obituary—
Warren Stone, M. D..... 639
Obstetrics, Anæsthiesia in..... 955
Otomycosis Aspergillina..... 607
Oil, Olive, in treatment of Gall Stones..... 676
" Cod-Liver, another substitute for..... 559
" Of Peppermint in Zona..... 459
Ointment, Boracic Acid..... 443
Oleates in Skin Diseases..... 451
Olive Oil, in treatment of Gall Stones..... 676
Opththalmia, (Strumous)..... 446
Ovariotomy, a complicated case of 115
Oxyuris Vermicularis and Lumbricoid Worms in Infants, treatment of..... 636
Ozæna, method for the cure of..... 67

Pain, post partum..... 603
Parasite of Leprosy..... 220
Parotitis accompanied with Orchitis, eventual suppuration and Atrophy of Testicle..... 678
Parturition, use of Nitrite of Amyl in..... 454
Pasteur and Koch..... 710
PATTON, G. FARRAR.
The Fumigation and Disinfection of Vessels and Cargoes, with special reference to the Mississippi river quarantine..... 641
Pelletierine, a reliable remedy against Tape Worms..... 226
Peppermint, Oil of, in Zona..... 459
Perityphlitis..... 206
Permanganate of Potash in treatment of Yellow Fever..... 445
Phagedena-Syphilis..... 829
Philadelphia Hospitals..... 471
Phosphates, Hypophosphates and Lactophosphates, relative value of..... 277
Phthisis, treatment of..... 444
" Tubercle Bacillus and... 706
" The use of the Mullein Plant in the treatment of..... 708
" Treatment of, as indicated by the discoveries of Koch, etc..... 141
" Statistics of..... 65
" Night sweats in..... 61
" Albuminuria in..... 472
Pilocarpin, hypodermic injections of, in Uremic Convulsions... 373

PAGE.
Phlegmasia Alba Dolens..... 259
Pneumo Enteritis or "Rouget" of the Pig—a newly discovered prophylatic Vaccine for..... 710
Pneumonia, peculiar reflex, due to Uterine Flexures and deviations..... 750
" Subcutaneous injection of Ether in..374-449
Poisons as used by the Medical Profession and abused by the public..... 375
Poisining by Carbolic Acid..... 658
" By an overdose of Nux Vomica..... 543
" By phosphuretted matches..... 589
Polyuria, Syphlitic..... 292
Past Graduate College..... 308
Past Partum pain..... 603
Potassium, Iodide of, in Frontal Headaches....66-73-443
" Bichromate, in treatment of Syphilis.... 54
Potash, Permanganate of, in treatment of Yellow Fever..... 445
Practitioner's Note Book..... 290
Pregnancy, and early symptom of. 303
" Hystero, Laparatomy, etc..... 463
" A new sign of..... 473
Prescriptions, small doses frequently repeated..... 367
Proceedings of Societies, (See Societies.)
Prostate, enlarged..... 379
Pruritus Ani..... 309
Ptomaines, Analogues of..... 60
Publications Received,....78, 319, 393, 479, 544, 625, 694, 778, 891.
Pulmonary Hemorrhage, a simple means of checking, etc..... 795
Puerperal Convulsions, subcutaneous injection in.. 379
" Nitro-Glycerine in the treatment of Heart Disease, and..... 465
" Mastitis, treatment of, by Iodide of lead ointment..... 635
" Hemorrhage..... 785
Quinine..... 59
" The Eruptions caused by.. 370
" To hasten the actions of.. 462
" Solution of, in Chronic Cystitis..... 465
" Intermittent Diarrhœa, caused by..... 680
Rabies,..... 656
" Some points in the history of, its curability..... 829

PAGE.

Rectum, Ephthelioma of the, Surgical treatment of..... 835
Renal Capsules, fibroma of..... 559
Reports of Societies, (See Societies)
Reports of Cases—
" On Otomycosis Aspergillina..... 607
" Impregnation before the menstrual Epoch..... 609
" Seven cases of reflex affections of Genito Urinary organs..... 759
" Foreign body in Larynx-Tracheotomy, recovery.. 765
" Analysis of Nine Cases of Cerebro-Spinal Meningitis observed in the Charity Hospital..... 855
" Two Cases of Leprosy..... 861
" Case illustrating Antagonism of Medicine, Touro Infirmary..... 541
" Danger of using cooking utensils of galvanized iron 542
" Poisoning by an overdose of Nux Vomica..... 543
" Gun-shot Wound of Lung and Spinal Cord..... 601
" Past Partum pain..... 603
" Ante-Partum Hemorrhage. 604
" Case of retained Fœtal Head, separated from the body during labor..... 605
" Post Mortem examination of the body of Mrs. Alexander..... 673
" Gall-Stones successfully treated with Olive Oil.. 676
" Parotitis accompanied with Orchitis-Suppuration, etc. 678
Report of the Chairman of the Standing Committee Louisiana State Medical Association on State Medicine..... 929
Respiratory organs, inhalation of Medicated Vapors in diseases of the..... 455
Reviews and Book Notices.
Annual Report of the Supervising Surgeon-General of the U. S. M. Hospital Service, 1882..... 549
Atlas of Gynecology and Obstetrics, By A. Martin, M. D..... 239
Compend of Anatomy, for use in the Dissecting Room and in preparing for Examinations, By John B. Roberts, M. D..... 693

PAGE.

Cerebral Hyperæmia, Does it Exist? By C. F. Buckley, M. D..... 394
Clinical Lectures on Diseases of the Nervous System, By Thomas Buzzard, M. D.... 395
Diseases of the Liver, with or without Jaundice, etc., By George Harley, M. D.. 610
Diseases of the Prostate, their Pathology and treatment, By Sir Henry Thompson, M. D..... 776
Experimental Pharmacology, A Hand-Book of the Methods for Studying the Physiological Action of Drugs, By L. Hermann, M. D..... 864
Early Aid in Injuries and Accidents, By Friedrick Esmarch, M. D..... 774
Esmarch, Antisepsis and Bacillus, Annual Address before the Philadelphia Academy of Surgery, Jan. 8, 1883, By Wm. Hunt, M. D. 697
Experimental Method in Medical Science, By John C. Dalton, M. D..... 236
Electricity in Surgery, By John Butler, M. D..... 237
Functions and Disorders of the Reproductive Organs Considered in their Physical, Moral and Social Relations, By Wm. Acton, M. D..... 869
Guide to the Practical Examinations of Urine, for the use of Physicians and Students, By James Tyson, M. D..... 775
Headaches: their Causes, Nature and Treatment, By Wm. Henry Day, M. D. 867
Illustrated Quarterly of Medicine and Surgery 76-392-617-694
Guide to Therapeutics and Materia Medica. By Robt. Farquharson, M. D..... 550
Medical Record, Visiting list for Physicians, Diary for 1883. W. Wood & Co.... 478
Manual of Histology. By Thomas G. Satterthwaite, M. D 771
Manual of Hypodermic Medication. The treatment of Diseases by the Hypodermatic method 547

PAGE.
Manual of Dental Surgery and Pathology. By Alfred Coleman, M. D..... 393
Manual of Obstetrics. By A. F. A. King, M. D 158
Manual of Diseases of the Skin. By L. Duncan Bulckley, M. D..... 158
Nervous Diseases, their description and treatment. By Allen W. Laine, M. D..... 234
Practical Treaties on Disease of the Skin for the use of Students and Practitioners. By James Nevins Hyde, M. D 772
Pocket Therapeutics and Dose Book. By Morse Stewart, Jr., M. D. 691
Prehistoric Trephining and Cranial Amulets. By Robert Fletcher, M. D..... 685
Pharmacopœia of the United States, 6th Decennial Revision 689
Practical Course in Medical Chemistry. By John C. Draper, M. D..... 551
Practical Treatise on Disease of the Skin. By Louis A. Duhring, M. D 396
Pathology and Treatment of Yellow Fever, with remarks upon the nature, the cause and its prevention. By Henry D. Schmidt, M. D..... 314
Physiological and Therapeutic action of Sulphate of Quinine. By Otis F. Manson, M. D..... 237
Physicians' Visiting List. P. Blakiston, Son & Co... 478
Questions in Human Anatomy. By Samuel O. L. Potter, M. D. 550
Slight Ailments.—Their nature and treatment. By Lionel S. Beale, M. D..... 477
Systematic Treatment of Nerve Prostration and Hysteria. By W. S. Playfair, M. D..... 868
System of Human Anatomy, including its Medical and Surgical Relation. By Harrison Allen, M. D..... 615
System of Surgery, Pathological, Diagnostic, Therapeutic and Operative. By Samuel A. Green, M. D.... 552
PAGE.
System of Human Anatomy including its Medical and Surgical Relations. By Harrison Allen, M. D. ... 871
Scrofula and its Gland Diseases, an Introduction to the general Pathology of Scrofula, etc. By Frederick Treves, M. D..... 637
The Incidental Effects of Drugs. a Pharmacalogical and Clinical Hand-book. By L. Lewin, M. D..... 75
The Physician Himself, and what he should add to the strictly Scientific. By D. W. Cathell, M. D.....870 397
The Electrician 616
Treatise on Fracture. By Louis A. Stimson, M. D. 688
Treatise on the Practice of Medicine for the use of Students and Practitioners. By Robert s Bartholow, M. D..... 681
Vision: Its Optical Defects and the adaptation of Spectacles O. S. Fenner, M D. 870
Rheumatism and Syphilis, Observations on the Etiology, Pathology and treatment of..... 724
RICHARD, M R.
Medicated Gelatin Preparations and their uses..... 273
ROHÉ. GEORGE H.
Early Joint Affections in Syphilis..... 111
Rosacea, Acne, Treatment of 460
Rouget or Pneumeo Entritis of the Pig, a newly discov-
Prophilactic Vaccine, for.. 710
Salicylate of Sodium or Carbolic Acid, utility of treating yellow fever with the. 284

Salicylic Acid.....305
SAUVAGE, R.
Report of a case of Tubercular Meningitis—treatment and recovery 739
Scarlatina and Diphtheria—Hart on propagation of by Milk..... 64
SCHMIDT, HENRY D.
On the Classification of Bacteria.....652
Sciatica, a case of, promptly and permanently relieved by Hypodermic injection of Ice-Cold water.....451

PAGE.
SEXTON, LUTHER.
Some remarks on a peculiar type of Typhoid Fever.....263
Sexual Abnormalities..... 58
Skin Disease, Oleates in.....451
Skull, Percussion of, in the diagnosis of the Brain..... 70
" Compound Fracture of.....119
Small-Pox, in Birds.....449
" And Vaccination, some debatable points in, Comparative Merits of Bovine and Humanized Vaccine Virus, Compulsory Vaccination..810
Society Proceedings—
Meeting of the American Public Health Association.....387
Berlin Medical Society.....592
Louisiana State Medical Society.....636, 719, 873
Annual Meeting of American Medical Editors.....799
New Orleans Medical and Surgical Association.....617
Attakapas Medical Association 695
Annual Report of the Chairman of the Standing Committee, Louisiana State Medical Association on State Medicine.....929
Sodium—Nitrite, in the treatment of Epilepsy.....433
" Salicylate of, or Carbolic Acid, the inutility of treating Yellow Fever with 284
Soups and Broths—Virchow.....295
Spinal Cord and Lung, Gunshot Wound of.....601
Spinal Meningitis—Cerebro-Analysis of Nine Cases of, in Charity Hospital.....855
Spleen—Stichegloff, on Faradisation of in Intermittent Fever.....384
Sponge-Grafting, three successful cases of..... 625
" On a modification of..... 628
STICHEGLOFF on Faradisation of the Spleen in Intermittent fever..... 384
STOKES, J. WM.
Bile and Digestion 161
Stone, of the Bladder, diagnostic importance of Rectal examination..... 557
Strumous Opthalmia..... 446
Subcutaneous injection of Ether in Pneumonia 449

PAGE.
Successful Ligation of the common Carotid with the freshly carbolized Sciatic Nerve of a Calf..... 639
Sulphurous Acid in Tuberculosis 225
" In Typhoid fever 294
" In treatment of Gonorrhœa 381
Surgery, a marvel of 382
Surgical treatment of wounds..... 919
Syphilis, Early Joint Affection in. 111
" The Transmission of..... 462
" American origin of . . 460
" Treatment of 66
" Treatment of, by Potassium Bichromate..... 54
" Spread by a Midwife.... 799
" And Rheumatism 225
" Cornil on Hypodermic injection of Mercury 459
" Constitutional, internal administration of Iodoform..... 631
Syphilitic infection of the finger in Medical men 54
" -Phagedena..... 829
" Polyura..... 292

Tape-Worms, Pelletierine, a reliable remedy against 226
" A new treatment of... 370
Temperature, reduction of, by cold bathing in Kibbee's cot 72
" A case of High, in a healthy young lady 291
" Some new remedies which reduce the . 665
Tepid Water and solution of Quinine in chronic Cystitis..... 465
Testicle, Atraphy of, Parotitis accompanied with Orchitis, eventual suppuration and Atrophy of the 678
Translations—
Rabies 656
Poisoning by Carbolic Acid. 658
A brief digest of Dr. Huchard's Clinical Lectures on Visceral Hysteria..... 659
Some new Remedies which reduce the Fever temperature to Normal..... 665
Treatment of Hysteria..... 666
The Inutility of treating Yellow Fever with Salicylate of Sodium or Carbolic Acid 284
Anæsthesia in Obstetrics ... 955
Injections of Solutions of Iron and Salts into the

PAGE.
Peritoneal Cavity of Animals and Man..... 289
A case of a high temperature in a healthy young lady.. 291
Syphilitic Polyuria..... 202
Cafeine in the treatment of Strangulated Hernia..... 293
Poisoning by phosphuretted matches, cure..... 589
Proceedings of the Berlin Medical Society, 1882..... 592
Batricosis..... 525
Measles in the Adult, differential diagnosis, Simple Roseola, Variola, Prognosis, and Complications... 527
Treatment of Varicose Ulcers of the Leg by Levigated Sub-Nitrate of Bismuth... 583
The Anæsthetic and Diuretic action of the Extract of Corn-Silk..... 587
Hysteria in Males..... 749
Peculiar reflex phenomena due to Uterine flexures and deviations..... 750
Syphilitic Phagedena..... 829
Notes on Leprosy..... 126
How to examine a Sick Child 130
Some points in the history of Rabies: its curability.... 832
Surgical treatment of Epithelioma of the Rectum.. 835
Trichinæ in Salted Meats... 132
Skin, Employment of Naphtal in diseases of the..... 523
Treatment of Syphilis by Potassium..... 54
" Of Syphilis..... 66
" " Rheumatism, observations on the Etiology. Pathology in..... 824
" " Diseases of the Eye, the use of Iodoform in the..... 798
" " Chronic Dysentery large Enemata of Nitrate of Silver.. 380
" " Infantile Diarrhœa by powdered Charcoal.. 382
" " Acne Dysentry with Aconite..... 443
" " Dysentery..... 713
" " Erysipelas.....555, 556
" " Acne Rasacea..... 460
" " Croup with Hydrargyra Sulphas Flava..... 453
" " Phthisis 444

PAGE.
Treatment of Hydrocele by the injection of pure Carbolic Acid.... 447
" " Gonorrhœa by injection of Sulpurous Acid diluted with water..... 381
" " Puerperal Mastitis by Iodide of Lead Ointment 452
" " Yellow Fever by the Permanganate of Potash 446
Trichinæ in Salted Meats..... 132
Trigone, incision of the..... 459
Tubercle Bacillus and Phthisis... 706
Tubercular Meningitis, case of, treatment and recovery.... 739
Tuberculosis—Bacillus 544-636
" Sulphurous Acid in.. 225
" The Bacillus of..... 139
" Etiology of..... 68
" Antagonism between Typhoid Fever and Pulmonary, prevention of, etc., by inoculation with the virus of the former 52
Typhoid Fever, Ergot in..... 464
" Remarks on a pecular type of..... 263
" Scarlatina and Diphtheria, propagation of, by milk. 64
" Antagonism between PulmonaryTuberculosis,and prevention of the latter by inoculation with the virus of the formsr..... 52

Ulcers of the Leg, Varicose, treatment of, By Levigated Sub Nitrate of Bismuth..... 583
" Their treatment with transplantation of raw meat... 796
Umbilical Cord, ligation of..... 371
University of Louisiana, Medical Department, Annual Commencement, Graduates... 889
Uremic Convlsions and Coma successfully treated by hypodermic injection of Pilocarpin, Chloral and Benzoic Acid..... 373
Uremia..... 449
Urinary Abscess..... 716
Urinary Organs, Genito, Seven Cases of reflex affection of..... 759
Vaccination, some debatable points in Small Pox, comparative merits of Bovine and Hu-

PAGE.
manized Vaccine Virus, Compulsory Vaccination.. 442
Varicocele..... 508
" Cure of, by intravenous injection of Chloral..... 380
Varicose Ulcers of the Leg, treatment of by Levigated Sub-Nitrate of Bismuth... 583
Vicarious Menstruation..... 705
VIRCHOW on Soups and Broths.. 295
Vivisection—Pigeon Shooting and..... 366

WALKER, W. W.
A complicated case of Ovariotomy..... 115
WATKINS, W. H.
Varicocele..... 508
WATSON, SIR THOMAS BART... 471
Worms, Lumbricoid, expulsion of
" four hundred and forty-one in thirty-four days... 702
" Lumbricoid in Infants..... 636

PAGE.
Wounds, Gunshot of Lung and Spinal Cord..... 601
Wounds, Surgical treatment of.... 919
Writer's Cramp..... 714

Yellow Fever, chapters from report of yellow fever commission, 1878..... 321
" Or "Yellow Jaundice" in New Orleans in 1882..... 194
" Prevalence in Havana 721
" The inutility of treating with Salicylate of Sodium or Carbolic Acid..... 284
" The Diagnosis of..... 281
" Preventive Measures against..... 99
" Treatment of by the Permaganate of Potash . 445

Zona, Oil of Peppermint..... 469

NEW ORLEANS

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ORIGINAL COMMUNICATIONS.

The Genius of Medicine.

AN ADDRESS.

By ROBERT B. S. HARGIS, M. D., Pensacola, Fla.

Action and reaction are fundamental phenomena of the intellectual as of the physical world. The "method of nature," in all its phases strikes us the more we learn, by its exquisite simplicity and stupendous grandeur. To none other, need the profession of medicine yield the palm in asserting its claims on humanity for the light it has shed on that method. It is well for us occasionally to ponder over the influence of our colleagues, in the past and present. We lack historians. No busy practitioner, isolated from the learned in large cities, and deprived of the essential advantages of consulting librarians, can presume to unfold with precision their influence of medical thought on the human understanding. How does the history of man indicate the status of Medicine at different epochs; and on the other hand, what has medicine radiated from within its special limits of searching experiences and glowing energy to comfort and advance mankind? I am proud to say that from the days of a pure empiricism, through an era of gloomy superstition to the final adoption of the scientific method, physicians have ever been in the van amongst men of action. It is proverbial that throughout the world, medical students

have ever been the promptest defenders of human liberties, the most valient knights in assaulting with positive recklessness, the entrenched fastnesses of authority and dogmatism. The science of medicine is nothing unless progressive. Intellectual life amongst us has long since compelled the decent burials of many doctrines imposed on the world by an Aristotle or a Galen, a Boerhaare, or a Hahnemann. Dead and buried are all human fiction in medicine, and nothing stands but solid and growing edifices of a truly inductive science. We have wearied with the rest of mankind of teleological researches. Our pre-occupied hours are too short for vague imaginings in relation to the doctrine of final causes, but we have raised a structure on rocks moulded by astute experiments, and whose substrata are as broad as nature's entire dominion, a *universe.* Ancient history reveals how much man suffered by confounding temporal with spiritual duties. Appeals to gods who ruled over the destinies of each particular organ resulted in never-ending disappointment. It is true that we are lost in astonishment at the vast knowledge indicated by the hygienic precepts of Moses. The social institutions of Egypt, the astute control of a reverent people, the rude awakenings due to plague out-breaks and famines, established rules of conduct and sanitary precepts over which we marvel and which we may well strive to enforce, in many respects, to-day. The Levites constituted an hereditary nobility, and were both the judges and the doctors of the people. Solomon, the most learned of men, wrote on the curse of diseases by natural means, and Ezekiah is charged with destroying this work, which interferes with the interests of the Levites. What a contrast if we pass from this to the contemplation of a pure idealism and its influence on medicine. Maladies were ascribed to the fury of gods and godesses. Isis, symbolizing the Moon, was regarded as inducing diseases which recurred periodically. She restored her son Orus to life. Since it was her anger that afflicted men with disease, the Greeks compared her to Proserpine, Queen of Hell, or to the redoutable Hecate.

Whenever freed from state succor and control, medicine raised its head as in Palestine. In India, 1400 years before

Christ, skilled writers compiled a summary of all medical works then in existence—the "*Angur Veda*," the most ancient of the sacerdotal medical writings, and from this came Vaidya, a medical caste among the Hindoos. To Æsculapius, son of Apollo and Coronis, does Greek mythology ascribe the origin of medicine. Melampus was the first medical practitioner in Greece. The priest in charge of the Æsculapian temples were supposed to have powers imparted to them such as the American Indians ascribed to their medicine men. Human curiosity and ingenuity amongst a people capable of vigorous mental growth, led to the priests recording the cases and cures arising under their daily observation. The most celebrated of the temples reared to the worship of Æsculapius were those of Rhodes, Epidaurus, Cnidos and Cos. In the latter place the immortal Hippocrates was born, B. C., 450 years. He was the son of Heraclides, a professed physician. Hippocrates is the true ancestor of experimental medicine. He examined the recorded cases, as set forth on the votive tables of the temples. His acute perception rendered him a shrewd statistician and bold generalizer. He perceived the periodicity of diseases, and may be said to have formulated the law of "*Crises.*" A retrospective glance of the school of Cos, reminding us that Pericles and Socrates, then lived, and that Praxagoras and Herophilus led on to the great Alexandrian school of medicine, almost causes us to imagine that the great Grecians were as highly endowed mentally as the greatest medical philosopher of the 19th century. The unrivalled eminence of Greek art likewise would induce us to believe that man since then may actually have lost much of his cunning. But a broad survey of conflicts and conquests since the days of Hippocrates, force on an acceptance the juster view that, notwithstanding periodical retrograde movements, human intellect and resources to-day enable the industrious amongst us far to out-strip the ancient Grecians. Isolation, accounts for the immorality of the great Grecians. No such fame can be the reward of greater achievements by the greatest of the host devoted now to our noble calling. We may well contrast the physicians of to-day with those of the

Hippocratic period, as we compare the naturalists of the 19th century with those of the early dawn of the Christian era. There is nothing more startling than the atomic theory of Democrites. He visited Athens where Socrates and Plato lived, traveled far and wide to acquire knowledge, embodied in his Diakosmos, and started the germinal thought that nothing out of nothing came, and that matter was indestructible. For him *atoms* and empty space were alone existent. It is not my purpose to speak of Epicurian and Lucretian philosophy, but it is important that we should fix our attention to the fact that at this period of intellectual activity and bold speculation, the first beginnings of the scientific method in medicine, advanced with the labors of mathematicians, like Pythagoras, and culminated in the Alexandrian School. Then "Euclid" wrote his "Elements" and made some advance in optics. Archimedes had propounded the theory of the lever and the principles of hydrostatics. Astronomy was immensely enriched by the discoveries of Hipparchus, who was followed by the historically more celebrated Ptolemy. Anatomy had been made the basis of scientific medicine, and it is said by Draper that vivisection had begun. In fact, says "Tyndall," from whom I am quoting, "the science of Ancient Greece, had already cleared the world of the fantastic images of divinities, operating capriciously through natural phenomena. It had skaken itself free from that fruitless scrutiny by the internal light of the mind alone, which had vainly sought to transcend inference and reach knowledge of ultimate causes, instead of accidental observations with a purpose; instruments were employed to aid the senses, and scientific method was rendered in a great measure complete by the union of Introduction and Experiment." Our forefathers, in their thirst for knowledge, were not particular as to how they acquired it, and it is said that during the reign of the first Ptolomy, criminals were sometimes dissected alive by physicians. In the days of Ptolomy, the 2d Philimus of Cos, a Greek physician of eminence, founded one of the earliest medical sects, the Empirici. No figure in ancient history stands out so prominently as Aristotle's. He was son of an eminent physician, Nicomachus,

and was born at Stagiea, in Thrace, 384 years before Christ. His love for natural history was hereditary. In philosophy, he was Plato's pupil. Plato said, "Aristotle is the mind of my school." Plato and Aristotle contains all the speculative phylosophy of Greece, but the influence of the last completely overshadowed that of his teacher, and for twenty centuries continued to exercise a tyrannic and pernicious sway over the minds of men.

He taught that reason alone can form science. Experience being the basis of all science, reason was the architect. He opened the world again to speculation, which Socrates had suppressed. Without taking into consideration Aristotle's teaching and in many senses enervating example, it is impossible to comprehend the drift of the arts and sciences, including medicine, during the long period intervening between the Alexandrian school and the days of Bacon. The most striking instance of Aristotlian control over the minds of men, is afforded by Galen, born at Pergamus, A. D., 130. He compiled a cyclopædia of medical literature, the text book for upward of thirteen centuries.

During the so-called dark ages we can only glean data for a gloomy picture of medical progress. Prior to the Christian era, astrologers and incantations were resorted to. Certain stars were supposed to rule our distinct parts of the human frame. Saints took the place of the stars with the Christian priesthood, and both stars and saints were alike prejudicial to the advance of medicine. In due time the priests, becoming wealthy, neglecting the church, and the Council of Larodicia, A. D., 366, forbade their studying or practicing astrology; but they continued to be the most popular doctors until the Lateran Council held A. D., 1123, ordained that priests and monks should not attend the bedside of the sick in any other capacity than as ministers of religion. At another council, held in Rheims, A. D., 1131, monks were prohibited from frequenting schools of medicine. Successive injunctions and prohibitions tended to divorce the surgeon or physician from the priest, but the separation did not occur fully till a Bull was issued by Pope Innocent the Third, per-

mitting those priests who practiced medicine to marry. Ever since that time the professed physician has been a layman.

The dawn of modern medicine came with Modini, the Anatomist of Bologna, early in the fourteenth century, and his pupil, Guy de Chauliacin. France gave an immense impetus to surgery. Aristotlian methods were successfully counteracted by Ambroise Pare, who defied the schoolmen successfully, comforting their fallacies and false teachings by appeals to nature and the dissecting table.

In the fifteenth century Leonardo da Vinci, the great Italian naturalist and artist, proclaimed that air was essential to combustion, and that no animal can exist in the atmosphere which is incapable of supporting combustion. Here was the earliest known theory established in ways not known to us, leading up to a rational understanding of the function of respiration. To Francis Bacon, born on the 22d of January, 1561, we owe the Novum Organum. He was the first to proclaim a philosophy of science, based on accurate verifications which Aristotle had ignored. His mind was antipathetic to all metaphysics, and he is justly entitled the Father of Positive Science. Now we can fully appreciate the wisdom of his declaration that Physics was "The Mother of all the Sciences." What physiologist can gainsay that? In his classical treatise on the subject of Heat, as well as in his Novum Organum, Lord Bacon maintained that the very essence of heat is motion and nothing else. He was the embodiment of the anti-Aristotelian school. He attacked Aristotle's philosphy as "only strong for disputations and contentions, but barren of the production of works for the benefit of the life of man." He scorned the traditions of the past, but, unfortunately for his reputation, he likewise held in contempt the researches of Copernicus and Gilbert, that brilliant physician, Dr. Gilbert of Colchester, whose Physiologica Nova was published in 1600. Gilbert was appointed physician in ordinary to Queen Elizabeth, but a brighter diadem shone on his forehead as the discoverer of terrestrial magnetism. He introduced the name of pole to the extremity of the needle, as pointing towards each pole of the earth, and first spoke of electric force and electric

attractions. He experimented on heat in relation to magnetism, and by his writings enlightened the curious in his field of researches for two centuries after his death. He is not yet quite hidden from view, and let us not forget he was a practicing physician. The Italians were in astronomy, physiology and the practice of medicine the most active followers of Bacon's method.

One of the least known to English readers, but most remarkable and illustrious of all the physiological investigators of the seventeenth century, was Francis Redi, born at Arezzo, on the 18th of February, 1626, a student of the University of Pisa, where he became doctor of philosophy as well as medicine, and a physician of the court of Tuscany, acquiring not only local but European fame, beyond any of his contemporaries. He was a man of the highest culture, a writer of the purest Italian, a poet and philosopher, but devoted chiefly to experimental science and natural history. His treatise on vipers, his experiments on the reproduction of insects, his observations on living animals, all attest to the breadth and depth of his knowledge, as well as to his strict adherance to Bacon's method of versification. He belonged to the school of Galileo, and was inspired by the progressive spirit of his times as an academician of the illustrious Trinity Academy del Cimento. He overthrew the universal belief in insects being developed spontaneously as a result of putrefaction. In relation to snake poison, he described the glands secreting it, the tooth which introduces it into a wound and the harmlessness of the poison if passed into the stomach without coming in contact with a sore. Redi may be fairly styled the John Hunter of the Italian school in the seventeenth century. He animated and developed the true experimental method which was so soon to prevail over Western Europe, and take deep root in the British Isles. Historians tell us that with the entry of Charles the Second into Whitehall, modern England began. We find ourselves, says Green "all at once among the great currents of thought and activity which have gone on widening and deepening from that time to this." The revolution led to all the infamy, intrigue and disorder which

comes from a revulsion from strict discipline such as the Puritans established. But the Court and town were more deeply fouled than the people, whose increase and sound sense favored the growth of purer thought and solid science as the basis of England's unrivalled greatness, and I may add of America's present and most glorious prospects. Kepler and Galileo were at this epoch creating modern astronomy, and Discartes revealed the laws of motion. The continent of Europe numbers many illustrious in physical, physiological and medical researches, whereas England counters with Bacon and Gilbert, the illustrious Harvey. He was the pupil of Frabricus ab Aquapendente at Padua, and with a profound knowledge of acquired truth, capped the pyramid of science with his great introduction, the discovery of the blood's circulation. Redi's influence is perceived in the aphorism, "*omne vivum ex ovo.*" The doctrine of spontaneous generation was forever laid low. It has been repeatedly revised, but always to be refuted by experimental proof of the imperfect observations of its advocates. Aristotelian disciples were not fully extinguished. Science to this day is hindered by them. Stahl, likewise a physician, who flourished from 1660 to 1734, imposed on the world his doctrine of phlogiston. He declared this to be the only principle of combustibility.

He descanted likewise on an immaterial essence—an organizing principle which he termed the "Anima" endowed with intelligence and pervading man. This anticipation Bœrhaare, who maintained that the living body was governed by "an universal catholic fluid," the most elastic principle in nature, termed by the Greeks "Animus Mundi." With the establishment of the Royal Society in 1662, we have the era of Lower, Boyle, Hooks and Mayow, who laid the foundation for British preeminence in physiological science, by their researches on respiration. They demonstrated the absolute dependence of animals on the atmosphere they breathed. By sustaining artificial respiration, Hooks proved in 1664, that the essential phenomenon of respiration is the admission of air to the lungs, and Dr. Richard Lower, of Oxford, who had practiced trans-

fusion proved by opening the chest of living animals, the change occurring in the blood on the passage through the lungs from dark venous to bright arterial red. Hooke was the pioneer in the true theory of combustion which ten years later Mayow was to advocate. Dr. John Mayow, born in 1645, in Cornwall, described in 1694, "The experiments which led him to conclude that atmospheric air contains a substance that he denominated Nitro-ærial spirit, which is consumed when bodies burn as well as when animals breathe. He placed animals under bell jars containing air and dipping them in water, he found that the volume of air gradually diminished. He believes that, in the process of respiration the venous blood circulating in the lungs combined with the Nitro-ærial spirit of the respired air, and that combination was attended with the evolution of heat, which served in part to maintain the animal temperature. He believes that in the process of respiration, gaseous impurities are removed from the blood.

Mayow supposed that the rusting of iron in air was due to its combination with nitro-ærial spirit, and he determined that when antimony is burned in it, it increases in weight in consequences of its having combined with the substance, whose existence he had surmised, and which was discovered, a century later, by Priestly, Lavoisier and Scheele, namely oxygen.

Mayow died at 34 years of age, but his prolific brain and industry won for him the great distinction of being one of the earliest pioneers of Modern Chemistry. Much as medicine is reopening from the Chemical Laboratory to-day, she may claim a large share in imitiating a sound chemical philosophy. In an essay on science and medicine, published in 1874, Dr. Arthur Gamgee says: "Aristotle has declared that large animals respire, but that small ones do not, basing the latter statement on the supposed fact that insects do not breathe."

Boyle's experiments with the air pump (facilitated by Dr. Hooks' apparatus, which was a great improvement on Otto de Guericke's of Magdelburg) proved, however, the fallacy of the assertion and his physiologica, discovery was confirmed by the researches of the distinguished Italian anatomist Malpighi, who describes the respiration of in-

sects in a remarkable work on the silkworm, which he dedicated to the Royal Society in 1669, having been elected a Fellow but one year previously, and further "whilst these researches were being carried out, Dr. Thomas Willis was adding to our knowledge of the Anatomy of the brain, being aided in his researches by Lower, and availing himself of the pencil of Sir Christopher Wren, and about the same time, another Fellow of the Royal Society, Christopher Havres, was contributing to our knowledge of the structure of bone." With the opening of the 18th century we have an edifying view of the progress of medicine as studied in the Universities of Leyden and of Edinburgh. Hermana Bœrhaave, appointed to the chair of medicine in the first, in 1709, proved a good teacher but lived by hypothesis.

Van Sirciten and Haller rescued his school from any charge of barrenness, much as we know that his direct influence was not that of a Redi or Harvey. A far greater man, an equally potent teacher in the class-room, but a more solid guide in science established the reputation of the University of Edinburgh as a school of Physic. William Cullen who lived from 1710 to 1790, was first apprenticed to a physician, took his M. D., in Glasgow in 1740, practiced at Hamilton and afterwards as a professor of Chemistry in the University of Glasgow. He was conspicuous for his attacks on what he called "*false facts.*" He was the most uncompromising searcher of fallacies in the laboratory. He had but one course to pursue when a statement or a novel observation struck him. He resorted to every expedient whereby he might determine its truth. Like Boerhaave he was essentially devoted to the actual teaching of youth, and lore buried with him was in all probability but imperfectly indicated by his writings. Essentially a physician, he was, to a far greater extent than is generally appreciated, Dr. Joseph Black's master and predecessor. Physicists were discussing the singular phenomena attending the evaporation of liquids. Richmann and others had confused ideas of chemical combinations with the air inducing the cold attendant on the dispersion of volatile agents. Cullen experimented and proved that heat, and heat alone, sufficient for this

change of state in matter. He likewise pointed out direct relation between the cold produced and the volatility of the fluid used. He moreover said—"the cold is made greater by whatever hastens the evaporation, and the sinking of the thermometer is greater as the air in which the experiment is made warmer, if dry at the same time." Cold he said "is the effect of evaporation." This experimental inquiry is at the foundation of Black's and Watt's researches on latent heat. A great Russian, to whom Mr. John Gamgee has of late directed attention, Michael Lomonosow, at the period recognized "*the sufficient causes of heat* as *consisting in the motion of matter.*" Undoubted familiarity on the part of Cullen with contemporary research and with Richmann's labors, published in the same volume of the transaction of the Academy of Science of St. Petersburg as Lomanosow's essays, would indicate that the greatest invention of modern times, *the steam engine*, was not born in the workshop, as practical mechanics insist, but sprang from halls of science where James Watts met with his most congenial associates. A true theory of combustion was undoubtedly formulated by a physician and the greatest medical teacher of the Scotch school, whose influences in this respect have to this day been felt, was the active pioneer in researches without which the steam engine had remained inchoate for a long and indefinite period.

Dr. Hooke had been Newcomer's wisest counsellors and brought the data of Galileo and Torricelli to bear on the practical work of the millwright, but reliance on atmospheric pressure and wasteful processes could alone be set aside by a better understanding of the laws of vaporization. In 1728, there was born in Bordeaux, France, of Scotch parents, Joseph Black, who pursued his studies in Glasgow, and in 1754 took his degree as Doctor of Medicine in the University of Edinburgh. At that time, according to Stahl's doctrines, plogistore or a fire essence, was supposed to be the cause of the causticity of alkalies. Black proved that it depended on their combination with fixed air; or what is now known as carbonic acid, a discovery which Lord Brougham declared was the result of "Incontestably, the most beautiful example of strict

induction investigation since the optics of Sir Isaac Newton." In 1756 he succeeded his own master with whom he had pursued his laboratory researches, as Chemical professor in Glasgow. In 1756 he attracted the world's attention by his splendid work on latent heat. It was also in 1756 that James Watt, after a year's residence in London returned to Glasgow, still a youth, in his 20th year. He was sheltered from the tyranny of Guilds, by Dr. Dick who employed him to repair some apparatus belonging to the University. He was permitted to occupy three rooms and remained there in intellectual society till 1760. Black's favorite pupil, John Robinson, who was Watt's junior by three years, became his intimate friend and adviser, and in 1759, suggested the propulsion of carriages by steam and forcibly pointed out to Watt the importance of the steam engine. Chemistry was studied by Watt under Dr. Block, and for years the latter expounded to his class the phenomena of heat disappearance during the conversion of water into steam, so that he was enabled to afford Watt a rational explanation when the latter directed his attention to the fact that it took a small quantity of steam caloric to heat a very large volume of water. I shall not attempt to follow the detail of Watt's work. Suffice it to say that perceiving the greater amount of heat held, weight for weight, by steam as compared with water, he devoted years of thought and successful practice, to avoiding every possible useless waste of that heat in developing power. Dr. Black, starting from Cullen's experiments, was not only the first discoverer of the doctrines of latent heat, but he likewise demonstrated that it requires a very different amount of heat to raise the temperature of different bodies one degree. The French Academy of Surgery had since 1731 encouraged and fostered tho experimental method in medicine. It was raised "on the basis of chemical observation, physical researches and experiments." Thus the distinctly positive course of advancement springing from Italy, invaded England, flourished with brilliant effect in France, and in William and John Hunter's hands again became consolidated in Great Britain. William Hunter was a pupil of Cullen. He essentially belonged to the experimental

school. It were needless to encumber this sketch with special reference to John Hunter's labors. He was the master hand of his epoch. Names begin to thicken, and everywhere the medical mind is found exerting an immense influence on human progress. Scarpa, Porta, Amussat, Hewson, Astley, Cooper, Travers, Arnott, and a host receding daily from view, owing to crowded generations of distinguished men, succeeding them in the medical world, sufficiently attest to the vast influence exercised by our profession on the development of man. The fact that Watt progressed so far and no further than a knowledge of laws relating to the production and condensation of steam then established by the Glasgow School of Physics and himself, has been forcibly put by Professor Osborne Reynolds. Watt dealt with steam at the pressure of the atmosphere. He was aware that high pressure steam could be expanded to advantage, but although he had some of the facts before him the advantage only became apparent on the discovery of further laws relating to steam, and these laws were not discovered until our own time." "For fifty years there was no advance, just as there had previously been with the fire engine, and it was not until the further discoveries in the action of steam and heat" that there was a decided step towards increasing the pressures at which engines work. As far back as 1824 Sadi Carnot stated the law which controls present practice, but it lay barren until the science of Thermodynamics was born. And who assisted at that birth? I have not time to relate how Rumford, Davy and many more pave the way for the brightest epoch in the history of positive science, when the doctrine of energy foreshadowed by Dr. Young, led to the definite foundation and recognition of true laws of heat, and the great theory of the conservation of force. And to whom does the world preëminently owe this? To a practising physician, Dr. Julius Robert Mayer, born at Heillbronn, November 25th, 1814. In 1840 he made a voyage on a Dutch freighter to Java, and it was the accident of bleeding a feverish patient in that country, and observing that the venous blood in the tropics was of much brighter red than in colder latitudes, that

led him to investigations which for ever identified his name with the birth of a new science. A science, in truth the foundation for every other science, and which deals with what are termed nature's forces. Dr. Mayer's theoretical demonstration of the equivolence of heat and work was rapidly followed by Joule's experimental determinations of the mechanical equivalent of heat. Joule commenced in the spring of 1844, and in the course of his researches he justified one of Dr. Mayer's hypotheses, that in compressing air the heat evolved was equivalent to the power employed, and *vice versa*, the heat absorbed in rarefaction was found to be the equivalent of the mechanical power developed. If compressed air was expanded into a vucuum no mechanical power was produced and no absorption of heat expected or found. But when such compressed air reduced to ordinary temperature by cold water is made to move an engine piston, then it leaves the cylinder so cold that the moisture is frozen. One of our colleagues, a great and worthy example of an industrious country practitioner, Dr. John Gorrie, of Apalachicola, Fla., based on this theory an ice machine, which he intended to use for the control of malaria and yellow fever. His patent is dated the 6th of May, 1841, and it is quite evident that without a knowledge of Mayer's theory or Jenks' demonstration, he designed a refrigerating machine based on the principle just indicated, and which anticipated numerous patents since secured by Kirk, Windhausen, Giffard, and a host of minor inventors. Dr. Gorrie proved himself a physicist as well as an engineer, and in his neighborhood many can testify to his exalted character as a man and success as a physician. These facts, bearing on the relation between the science of Medicine and Thermodynamics from Mayow to Gorrie, have been furnished me by one who has made these questions a special study. Professor John Gamgee, who, like Dr. Gorrie, wished to apply artificial cold to the prevention of yellow fever, has supplied me with these data and on his authority, and I do not hesitate to endorse them. It would be difficult for us to avoid touching on the one subject to which I have devoted much thought during my entire professional life. The views

I promulgated five and twenty years ago of the purely naval origin of yellow fever has slowly but certainly gained ground, so that now they are sustained by our knowledge of the geographical distribution of diseases, and likewise by the tendency of all research as to the nature of putrefactive poison. Sanitary science still compels the physician to become an accomplished physicist and chemist. No branch of natural history fails to enlarge his views and develop methods calculated to promote the health and comfort of his fellow-men. Whether in the laboratory tracing adulterations or evidence of poisoning, or as travelers studying physical geography and the distribution of diseases, in every clime he finds the broad domains of pure science ever suggestive and essential to his advancement. Three great English names stand pre-eminent in the field of hygiene. They are Dr. William Fair, Dr. Edmund Parkes and Mr. John Simon. Their enthusiastic followers crowd not only Great Britain but America, and circumstances have formed the organization of sanitary authorities in this country to an extent that twenty years ago appeared impossible. This is due mainly to efforts of one modest but resolute reformer.

We may briefly review that course of events as best known to us, and which have all occurred during my professional lifetime. From 1840 to 1856 was the formative period preparatory to concerted effort in favor of sanitary reform on the part of the professional and scientific readers and observers of passing events. The decade of 1850–60 was that of agitation on the part of sanitarians who gradually moulded a public sentiment which was an indispensable foundation for the abundant work since prosecuted. Massachusetts appointed its sanitary commissions, which made an admirable report on the health of the people. The Quarantine and Sanitary Convention was organized and held annual meetings in 1857–8–9 and 1860. Delegates from most of the States attended were inspired with the enthusiasm of new believers and returned to their homes to learn public opinions, and encourage all in a conflict against diseases. The four volumes of proceedings, published by the convention, embodied discussions on the more popular question of hygiene by some of the ablest physi-

cians and publicists of that day. The first four years of the succeeding decade, 1860–70, were those of the late war between the States. Nevertheless it was the opening epoch of American sanitary legislation. The war on the old order of things began in New York city. Its sanitary government was of the crudest and most contemptible kind. Its chief officer was a very ignorant politician, and its health inspectors were keepers of grog shops. Their qualifications may be estimated by the reply of one to the question: "What is hygiene?" asked by a legislative committee. He answered: "A mist arising from low grounds." Another was asked: "What is the best preventive of small-pox? To which he replied "Burn coffee in the room." On a health deparment officered by such men, New York expended $1,000,000 00 annually. At this stage a revolution was planned, pursued and proved successful. My friend, Dr. Stephen Smith, the present New York representative of the National Board of Health, was chiefly instrumental in organizing and directing the force which effected the reform. Through his efforts the leading physicians and citizens became interested and united.

When an intelligent people can be instructed it is not difficult to upset combinations inimical to public interests. But at the outset, the most determined advance was most successfully resisted. Legislative committees would scarcely grant a hearing, but defeat only stimulated to greater endeavors. A Citizens' Association was organized, a fund raised and a complete system of sanitary inspection perfected, for the purpose of preparing a report on the actual state of the city. Thirty-one sanitary districts were formed, and to each was appointed a first-class medical man. Every room from celler to garret, of every accessible house, was thoroughly examined and an inventory taken of its contents, size and number of inhabitants. Back yards, stables, privies, dog kennels, cats, hens, geese, filth, everything was noted and set forth in records and maps, partly colored. The whole was complete in three months at a cost of $22,000. It formed the subject of an elaborate report, a sanitary bill was drawn up, and at the ensuing meeting of the Legislature a renewed effort

was made in behalf of reform. Dr. Stephen Smith presented the facts of the report, and Mr. D. B. Eaton the bill before the joint committee of the two Houses. The report was completely successful, the committee being overwhelmed by the most startling discoveries, and indisputable evidence of the gross insanitary state of the metropolis. The joint committee unanimously reported in favor of the bill. This soon became law. The public press gave great prominence to Dr. Stephen Smith's speeches, and the report of the Association, prepared for publication by Dr. E. Harris, was regarded by the best European authorities, such as Parkes and Pettdneofer, as a model of volunteer sanitary work. The law was modelled after the English Sanitary Act, and is probably the best piece of sanitary legislation in the world. And events now occurred, calculated to consolidate public opinion in favor of such zealous intervention in the interest of public health. Cholera was introduced in New York when the new Board of Health had barely organized, in 1866. The usual panic prevailed at first, but the new officers grappled resolutely with the plague, and it soon become apparent that the disease was under complete control. Each and every new case was summarily dealt with; the panic subsided, and the season passed, with but a few scattering cases, though the usual virulence and mortality were witnessed in neighboring towns. The effect of this campaign was all that could be desired. The reputation of the new Board became there and then established. Other cities, and notably Chicago, Washington and New Orleans organized on the same basis.

Now comes the last decade, from 1870 to 1880. Approaching the first year, Dr. Stephen Smith conceived the idea of uniting the elements which his industry and intelligence had called into active play, so as to have an annual conference of sanitarians from all parts of the Union. A quiet and unostentatious bearing, with a sincere devotion to work for their own sake, gave Dr. Smith the aid of all, and some challenged his boldness. At his own expense, and after extensive correspondence with all devoted to public hygiene in this country, he called by mutual consent a small meeting in New York, on

the 18th of April, 1872. Out of this meeting grew the American Public Health Association. Dr. Smith was elected President four consecutive times, but on the fourth he positively declined acceptance. He desired to have a representative organization, and insisted on a general or national, rather than any personal policy, such as is usually so detrimental to public interests. Too much credit cannot be given to Dr. E. Harris, its first permanent Secretary, who devoted time and money freely to the early years of the Association. The work of the American Public Health Association had a most important bearing on the development of sanitary thought in this country. Under the stimulus of its discussions, boards of health, state and municipal, rapidly multiplied, and large numbers of earnest students were brought into the field of sanitary inquiry. In his inaugural address, as President of the Association, Dr. Smith stated the objects in view as "the advancement of sanitary science, and the promotion of organizations and measures of the practical application of public hygiene." He discussed the actual potential longevity of man, and declared that the increased expectancy of life had not arisen from mere successful methods of treating diseases, but was rather due to man's advance in a higher civilization which enables him to live with less expenditure of vital force, and which leads him to seek his own highest welfare in the common efforts to promote the welfare of all."

The organization of the National Board of Health is a matter of too recent history to demand a statement here, but all may take courage from the origin of this National effort in attempting to imitate reforms such as Dr. Stephen Smith has been the main author of in the past. I wish specially to allude to the peculiar influence exerted by a few noble women in propounding and testing public health measures. The first was Lady Mary Wortly Montague who accompanied, her husband, the Ambassador to the Court of Constantinople. She learned that the villagers in the neighborhood were in the habit of inoculating for the small-pox. She performed the operation on her son, and was afterwards the means of introducing it into England. This somewhat facilitated Edward

Jenner's efforts, thwarted as they were by professional jealousy and gross prejudice. He, too, learned from the people that cow pox preserved them from the attacks, disfigurement and deaths incidental to small-pox, and his discovery constitutes one of the grandest illustrations of the value of experiments and induction. Two ladies of noble family had their children vaccinated and soon opposition ceased, favoring the general acceptance of Jenner's practice. These examples have been almost cast in the shade by the timely influence of Miss Elizabeth Thompson, of New York, in 1878. She sought wise advice, obtained it through Dr. Stephen Smith from Surgeon General Wordsworth, and the result was the organization of the National Board of Health. We now feel that on the shores of the Gulf of Mexico future epidemics of yellow fever can only be rare and unimportant, unless as the result of gross negligence, which is likely to be brought home to the door of the delinquents. Yellow fever, as a devastating disease of the American seaport, may fairly be declared at an end. I had hoped to have traced the history of American physician physicists. Time compels me to close, but we have in the Drapers living monuments of the great school of experiment and induction. Their names are linked with discoveries in Astronomy, Electricity, Light, Meteorology and in industrial arts such as Photography, almost crowding from vision their teaching on Ethnology, Physiology and allied science. The old spirit survives, and in Dr. Gorrie proved itself fruitful on the shore sands of our State. The object of our association is to further the interests of our great profession. It is well to maintain a high standard of excellence in view, and it is to be hoped that the link shown to exist between the medical minds of the 17th and 18th centuries, with leading inventions of the 18th and 19th, may inspire all to hope for solid advances in science by increasing devotion and observation on the part even of overworked medical practitioners. The genius of medicine has proved itself resplendent in the past. Let each and all of us not dim the lens which, converging the rays of the past, almost threatens to blind us. We have but one course to pursue and that is, onwards.

Inundations of New Orleans and their Influence on its Health.

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Gratifying evidence of the increasing interest in public health has been furnished, by the recent effort of the Hon. J. Floyd King, of Louisiana, to induce Congress to provide means for the investigation of the sanitary influence of this year's unprecedentedly wide-spread and destructive inundation of the Mississippi Valley. Whatever may be the result of this effort, it is the duty of the medical profession to contribute, for the benefit of science and of the people, such knowledge of this subject as has been heretofore and may, this year, be acquired. This view has induced me to investigate the records of previous overflows, especially in New Orleans, and to compile therefrom the following contribution to their influence on health.

Research soon proved, that this subject has thus far received very little careful study, that trustworthy records are meagre and unsatisfactory, and that, as a necessary result, there can be found those, who, trusting treacherous memories, vague impressions and very carelessly observed facts, entertain views entirely opposed to each other. To study properly the influence of overflows on health, there are at least two considerations which should be kept in mind.

First. Overflows differ in their date, duration and extent, in the irregularity and other peculiarities of the soil inundated, in the force of the current, the amount of deposit and other special conditions; and, since these variations in different years and places probably cause different results, it is not surprising that opinions as to these results should be conflicting, and that closer study of the subject, than has yet been given, is necessary to reconcile these conflicting opinions and to establish the truth.

Second. Overflows are apt to produce sickness as secondary results,—for instance, of exposure to the weather, wet clothing, bad diet, crowding in camps of refuge, etc.—and these

well understood secondary results should not be confounded with the primary results of the overflow alone. The sanitarian needs knowledge of the influence specially of the latter.

This knowledge can now be best, though insufficiently, gained by study of the influence of overflows on cities, and for these two reasons: In the Mississippi Valley there are no rural localities which register statistics even of death, much less of sickness; such statistics are indispensable to trustworthy conclusions; and, only in cities can even mortality statistics be obtained. In the next place, the secondary results above alluded to prevail, to much less extent, in cities than in the country, and therefore can be better eliminated from the determination of the problem of the sole influence of an overflow on health.

It is not presumed, however, that a satisfactory solution of the problem for cities, much less of one city, would, at the same time, solve it for the country. Dr. Devron, of New Orleans, well known for his sanitary experience and knowledge, holds, as a result of his observation, that, while overflows have not manifested any malign influence on the public health of this city, as a whole, yet, such influence has been noticeable in the sparse population inhabiting those outskirts, where undergrowths of trees and plants interfere with drainage and with the removal of the filth deposited by the water. For this or other reasons, what holds good for New Orleans may not hold good for even adjacent rural localities. However, for the reasons given, and also because the meagre records of the overflows in this city are infinitely more meagre for the country, this article is limited, almost exclusively, to the compilation of our records in regard to the former. Although the imperfections of this contribution are fully appreciated by me, it is none the less hoped, that, in as much as my research has failed to discover any article in medical literature on the present subject, this contribution may prove instructive and may aid others, in the future, to investigate the subject more thoroughly.

New Orleans fronts on the Mississippi river, and has in its rear, at a distance varying from four to seven-and-a-half

miles, Lake Pontchartrain. The average width, from river to lake, of the densely inhabited portion of the city, does not exceed a mile and a-half; thus leaving much the larger area, between the river and lake, very sparsely inhabited, in fact much of it is undrained swamp-land. The river front is nearly eleven feet above sea level, hence the city, whether inundated by the river or by storms from the lake or, oftener still, by the waters of both river and lake co-operating, is always inundated by back-water from the lake (tide-water) in the rear, never completely and, of course, to variable extent; the recession of the water, from the maximum extent, being generally within a few hours or days. The modus operandi of overflows is sufficiently explained in subsequent quotations.

Since the foundation of New Orleans in 1718, not less than eight partial inundations by the river are recorded; viz.: in 1719,* 1735, 1785, 1791, 1799, 1816, 1849 and 1862. The partial inundations, by Lake Pontchartrain or by this lake aided by the river, have been much more numerous, however no records of these have been sought prior to 1830, and, it is probable, that records of all which have occurred since then, have not been found, even if ever made. The records of nine such overflows, since 1830, have been found, and these occurred in the following years, viz.: 1831, 1837, 1846, 1856, 1861, 1868, 1869, 1871 and 1881. Of these seventeen inundations, no records, respecting their influence on health, have been found in regard to the first two, and only incidental allusions to the next three, therefore my record will begin with the overflow of 1816, and will contain such pertinent facts as I have been enabled to gather in reference to the twelve overflows, since 1816, of whose occurrence I have succeeded in finding some evidence. In order to estimate their influence on health, it is indispensable to compare the mortality statistics of years of overflow with years free therefrom, hence such statistics, as complete as procurable, have been recorded, together with the facts relating to each overflow. These data are presented in the table, which

* Most authorities say 1718, *the year of foundation*, but New Orleans was founded in *August*, 1718, too late for an inundation by the Mississippi, and there is authority, for the more probable statement, that this overflow was from March 25th to June 24th, 1719

concludes this article, to which table the reader's attention is solicited before proceeding farther with the text.

In addition to the facts cited in the table, other records have been found and all of these will now be presented.

OVERFLOW OF 1816,

and therewith of 1785, 1791, and 1799.

Fenner's "Southern Medical Reports," pp. 56–62, Vol. I, quoted from a New Orleans newspaper, May 25th, 1816, reporting then the overflow of 1816, as follows:

"Old authorities recount three inundations caused by crevasses at this same place. One occurred in 1785 and another in 1791. There was not a greater mortality upon these two years. Those who doubt may go and consult the mortuary register kept by our venerable pastor. A third inundation occurred in 1799. There died this year more or less, but not in consequence of the inundation. A vessel arrived from the north, where yellow fever had been committing severe ravages for a long time, which introduced into this city patients and the disease. This circumstance is well known to many respectable persons, and let their intelligence and information dispel all the apprehensions which have sprung out of the popular tales." In respect to the overflow of 1816, it is reported that "the ensuing summer was a remarkably healthy one," as is amply confirmed by the mortality statistics cited in the table.

The inundation of 1816, the most extensive and prolonged of which we have record, except that of 1849, proved at least that an overflow in May, by the river, did not necessarily cause either an epidemic or any increase of sickness.

1831.

An overflow in August from Lake Pontchartrain was not followed, apparently, by any injury to health, since the annual deaths were less than the average and fewer than in 1830, a non-overflow year. In 1830 there were 117 and in 1831 only 2 deaths by yellow fever.

1837.

The overflow of this year occurred at the close of a very se-

vere epidemic of yellow fever, and there is nothing to indicate an unfavorable influence on health.

1846.

The May number, 1846, of the NEW ORLEANS MEDICAL AND SURICAL JOURNAL, pp. 825 7, Vol 2, reported the storm which began April 4th and by the 6th had flooded a large portion of the city. This flood receded in about a week. On p. 827 the editor stated as follows:

"We have thought it proper to make this extended notice of the inundation, with the view of seeing what effect it may have on the future state of health. Two occurrences of a like nature happened, the first in 1831, and the second in 1837. In 1831 the inundation took place in August; yet, though the swamp in the rear of the city was highly offensive from the effluvia of putrid fish, there did not occur a single case of yellow fever. The year, indeed, was a remarkably healthy one. In 1832, however, we had a severe epidemic, both of yellow fever and cholera. In 1837 the inundation occurred in October, during the prevalence of a violent epidemic of yellow fever. The fever this year greatly abated before the usual period, and, by many, this effect was attributed to the gale and inundation. Our own opinion is, that the disease abated, for cease it did not, for want of subjects. We are now studying closely the remote cause of yellow fever, and we deem it proper to note everything that may have a bearing on the subject.

We have been informed, and on good authority, that the inundation of 1816, from the crevasse at Carrollton, was like the inundation from the lake in 1831, followed by no serious sickness. This event occurred in the early part of May, yet the city escaped the visitation of yellow fever; but in 1817, a violent epidemic occurred."

The July No. p. 135, Vol. III. reported. "Intermittent and remitttent fevers have not prevailed to so great an extent as usual this season, up to date," but, "an increased number of cases of dysentery and other derangements of the bowels" have occurred.

The September No., p. 273, Vol. 3, reported: "Our city may be said to be in the enjoyment of uninterrupted and *unmitigated* health. So litttle disease of any kind whatever was perhaps never known in New Orleans at any season of the year as exists at this time. This is certainly very extraordinary, when we take into consideration the sultry heat of the season, the immense quantity of rain that has fallen, the unusual filthy state of the streets, and the great influx of unacclimated soldiers going to and returning from the seat of war."

The November No., p. 415, Vol. 3, reported: "With this exception, [a few sporadic cases of yellow fever] there has been no disease of special notice, the state of health has been most excellent."

The January No., 1847, p. 556, Vol. 3, reported: "With the exception of yellow fever we had no sickness worthy of particular notice." There were only 160 deaths by yellow fever in 1846.

Before referring to the next overflow in 1848, it may be well, to state that, in Barton's "Report of the Sanitary Commission of New Orleans, 1853," the inundation of 1849 is erroneously assigned to 1844; and to introduce, in this place, the following records in regard to the overflows of 1844 and of 1850, both of which seriously afflicted the surrounding country but not the city of New Orleans.

OVERFLOWS OF 1844 AND 1850 IN THE COUNTRY.

The New Orleans Medical and Surgical Journal, Volume 1, p. 247, October, 1844, referring to the extensive overflow in the country, as being at its highest point July 30th, 1844, reported as follows;

"Let it be noted as a fact, which we think will be substantiated by the testimony of the profession, that, during the present year, when the Mississippi and its tributaries have been higher than they were almost ever known before, *all the River towns from New Orleans upwards have been unusually healthy; whilst the interior and uplands throughout the Southwest have generally been sickly.* It has long been observed, however, that whenever the river banks and valley localities are healthy, the interior of the country is apt to be sickly; and vice versa. This might naturally be expected from the difference of topography." The above "long been observed" and "naturally be expected" are most questionable.

In respect to the overflow in 1850 of extensive rural districts in the Mississippi Valley, Fenner's "Southern Medical Reports," p. 754, Volume II, stated that, "as a general remark, it is worth mentioning that, notwithstanding the extensive inundation of 1850, the year was as healthy, if not more so, than usual." From one part of the country, overflowed in May and June, 1850, Trinity, La., Dr. A. B. Kilpatrick reported, p. 165, Volume II, Fenner's Southern Medical Reports, as follows: "The year in this section of the country, with the single exception of a transient visitation of the cholera in the month of February, has been as healthy as any year preceding. It has been contended by many, that *the seasons accompanying and immediately succeeding overflows are more healthy than others*, and the physicians in this vicinity contend that such has been the case this year."

1849.

In this year occurred the most disastrous overflow which ever afflicted New Orleans, and in the same year an excessive mortality. This was due chiefly to a severe epidemic of cholera, which, however, began and was severest in December, 1848, and the deaths by this and all diseases were much more numerous in the first half of the year, during which nearly two-thirds of the annual deaths occurred, than in the second half after the overflow had disappeared. To the 3176 deaths by cholera, yellow fever added 752, the first case reported by the Board of Health having been admitted to the Charity Hospital, July 28th.

The following quotations concerning this overflow deserve record.

The July No., 1849, of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, pages 139, 140, vol. 6, reported as follows:

"It remains to be seen what effect the inundation of a large portion of the city, may have upon the progress and symptoms of this disease [cholera]. About the first of May, 1849, the levee, about nine inches above the city, yielding to the pressure of the waters, gave way, and through this crevasse a large volume of water, from the swollen current of the Mississippi was forced into the swamps and low lands in the rear of the First and Second Municipalities [the present First and Second Districts], and also a part of Lafayette [the present Fourth

District], located above New Orleans. This immense body of water, unchecked, soon began to encroach upon the inhabited parts of the city bordering the swamp-lands and lying between the city proper and the lake. In about one month from the formation of the crevasse, that is to say, about the first of June, the water reached its highest mark, and since that time it has daily declined, and at this hour (June 18th, 1849) a portion of the inundated district has been relieved of the stagnant water. Nearly one-third of the First and Second Municipalities were under the flood, at the highest water mark. Of course much suffering and damage to property were experienced in this part of the city.

Since the flood began to retire, a deposit of alluvion, containing a large percentage of vegetable and animal matter, has been precipitated in our streets and gutters; all this, if left exposed to the action of a June and July sun, may become the active agent of disease—the *materies morborum.*

It is but just to state, that the authorities of the city, with our patriotic Mayor as leader, are making extraordinary efforts to rid us of this deposit, as the water recedes.

The month of June is usually more oppressive than any other of the twelve months. Since the first of this month to the 20th, the thermometer has rarely fallen below 90° in the shade; occasionally it has reached above that figure at meridian. The question is asked from every quarter, what influence will this overflow exert upon the health of this city? In 1816, when the inundation was almost equal to the present, the health of New Orleans, according to the testimony of the oldest inhabitants, was remarkably good, there being but few cases of serious sickness, and not a trace of yellow fever. Although the limits of the town were much more contracted then than now, yet, but little was done to guard against, or counteract the effects of the inundation. This fact, although highly encouraging, should not lead the "authorities" to relax their efforts in cleansing this great Augean stable, so long the receptacle of fœtid deposits, of both putrefying animal and vegetable matter. As we have no great faith in the so-called influence of malaria (the result of about ten years observation in this city)

upon human health, we are inclined to believe that the health of the city will not be seriously endangered by the overflow. If chloride of lime, or some other powerful disinfectant or absorbent, be freely used in the district overflowed, we shall enjoy, perhaps, more than our usual exemption from sickness, notwithstanding the predictions to the contrary of alarmists and miasmatists. But it is idle to speculate on a subject about which so great a diversity of opinion has been expressed; time will solve the problem, and let us not therefore anticipate the ills and misfortunes of life, but wait, with calm resignation (doing in the interval everything in our power to avert disease), until the moment arrives when we shall be called on to act our part."

Fenner's Southern Medical Reports, p. 70, Vol. II., reported: "On the 22d [June], the water was nearly gone from the city, and copious showers of rain washed off the terrible filth which, for forty days, had stood stagnant over street, yard and tenement. The pavements were much injured, the gutters full of mud and the bridges swept away."

The September No., 1849, p. 282, Vol. 6, of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, reported: "We ventured te predict, in a previous publication, that the inundation, so far from proving detrimental to the health of the city, might possibly remove many causes of disease, and thereby reduce the bills of mortality. Such has indeed been the fact, and we refer to the weekly record of deaths, in another part of this paper, to verify our prediction. During the latter part of July and up to date, the heat has been quite oppressive, the thermometer ranging at, and even above 90° F., for a short time during the day. Cases of coup de soleil have been of daily occurrence since the intense heat commenced."

Another observation, Fenner's Southern Medical Reports, p. 82, Vol. II., deserves record: "August and September [1850] were remarkable dry, with a prevalence of northerly winds, which, in connection with *the fact that upon all previous occasions*, so far as our knowledge goes, *the summers next succeeding those in which the city was inundated were very sickly*, gave rise to the constant expectation of a severe epidemic of yellow

fever. But the result was, that although there was a great deal of fever, it was mostly of a very mild character." The facts recorded in the table certainly do not justify the conclusion that, on "all previous occasions," the summer next succeeding an inundation was specially sickly. This conclusion was probably derived from statements derived from the memory of "the oldest inhabitant," an authority whom statisticians have long since learned to pay little attention to when unsupported by statistical records.

1856.

The September No., 1856, NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, p. 289, Vol. XIV., reported as follows: Referring to the great storm, August 10th to 13th, "The sea swept over the out-lying islands, and the depressed littoral of Louisiana, drowning hundreds of its inhabitants and elevating the waters of Lake Pontchartrain whereby a large district of New Orleans was inundated. The rain flood from the higher or river-belt met, face to face, the sea in the lower or rear district, covering the streets and floors of the houses several feet deep for nearly a week. In the meanwhile, since the recession of the flood, the salubrity of the city has been surpassed by few, if any cities of similar populousness in the Republic."

The mortality statistics in the table certainly fail to indicate any unfavorable influence of the flood on health.

1861.

The annual mortality was unusually slight and there are no facts indicative of any unfavorable influence of the overflow on health. No special reports have been found for either 1861, or for the three following years.

1862.

No unfavorable conclusion can be drawn from the mortality statistics. In any case, however, the evidence would be unsatisfactory, since only a limited part of a sparsely inhabited section of the city was inundated.

1868.

This year, after as well as before the overflow, was characterized by an unusually small mortality; as has repeatedly oc-

curred in the year which followed, as did 1868, a year noted for the prevalence of a very severe epidemic of yellow fever.

1869

The mortality statistics fail to indicate any unfavorable influence of this overflow, which, however, was too limited in duration and extent to afford satisfactory evidence.

1871.

The records for 1871 are fuller and more instructive than for any other overflow. The following extracts are from the Annual Report of the State Board of Health for 1871. The President, Dr. C. B. White, reported, pp. 33–34, as follows:

"During the spring months, the waters of the Mississippi River, flowing through the crevasse at Bonnet Carre [about 20 miles above New Orleans], found their way into Lake Pontchartrain. About the first of June occurred a long succession of strong winds, which interfered with the outflow of the waters of Lake Pontchartrain, unusually augmented by the break in the river levee. The result of this combination of circumstances was an extraordinary altitude of the waters of the lake and of the two navigation canals leading thence to the heart of the city. At this time, June 3d, occurred a break in the banks of the New Canal, as a result of which that portion of the First and Second Districts lying between the New and Old Canals and between Basin street and the Metairie Ridge, was submerged. [This included one Ward, the 3d, of the First and one Ward, the 4th, of the Second District.] After some days the water became entirely stagnant and disagreeable odors were given off. To remedy this state of matters, and hoping possibly to do something to prevent future ill-health, instructions were given to disinfect and deodorize with carbolic acid and salts of iron. The details of the work will be found in the reports of Drs. Clark and Albers. The overflowed region enjoyed a remarkable exemption from malarial fevers during the remainder of the year."

Dr. J. S. Clark, Sanitary Inspector First District, reported, pp. 54–6, as follows: "The water, with which this portion of the city was submerged, was from the drainage canal, where

was the collected filth of the city, which, owing to the high stage of the backwater, had not been forced out for several days previously. Added to this were the contents of every sink, cesspool, stable and gutter, with garbage from the dumping ground, dead domestic animals, etc., etc." This refers to the 3d Ward, the most populous in the city. "The water, air and soil, thus poisoned, necessarily produced a sickening smell, and, in compliance with your instructions, at the first indication of the receding flood, a thorough and systematic disinfection was undertaken." For this purpose, 2,960 gallons of carbolic acid and 145 gallons of solution of perchloride of iron were used. A statistical table of deaths by fevers, usually prevalent, is given for the non-overflow year 1870 and the overflow year 1871, and this table fully justifies Dr. Clark's conclusion, that "thus it will be seen that the mortality from fevers was *less*, for the months subsequent to the overflow, than for the corresponding months of 1870."

Dr. F. B. Albers, Sanitary Inspector Second District, reported, pp. 62–64, as follows: "The Second District has been remarkably healthy during the entire year, notwithstanding the overflow from Lake Pontchartain, which inundated that part of the city lying between the old Carondelet Canal and the New Canal, as high up as Basin street, from the 4th of June to the 16th, at which latter date the water returned into the banks of the canal." "When the levee at the foot of Hagan avenue broke, on Saturday, the 3d, the water was so high in the canals that, by Sunday morning, the entire 4th Ward to the Old Basin was inundated as far up as Franklin street. The water continued to rise gradually until June 8th, when it appeared to have come to a stand. At this time the water presented the appearance of an offensive and putrid cesspool, which was observed particularly whenever it was stirred up, and showed that a great deposit was taking place, all along its course, from the contents of sinks, cesspools and stables, with garbage from the dumping-grounds, numberless dead animals, etc., which produced a sickening smell and had an unhealthy effect on those exposed to it.

On the 8th of June, when the water appeared to have reached its highest stage, I commenced immediately, according to your instructions, to disinfect the inundated district all along the edge of the water from Canal street to the Old Basin with carbolic acid and perchloride of iron. The latter was discontinued on 10th, 11th and 12th, as the paved streets did not so essentially require the application as those that were not paved and it was applied again on the 13th, when the water had receded beyond Claiborne street. The process of disinfection was continued from day to day, every morning and evening, following up the water as it went down, and in this process of disinfection there were included, besides the streets and gutters, all the yards, stagnant pools and water closets of each house in the overflowed district; and there were consumed altogether one hundred barrels of carbolid acid, two barrels of copperas and one hundred and fifty gallons of perchloride of iron.

On the 10th, the water had already receded as far as Claiborne street, on the 13th to Galvez, on the 15th to Broad, and by the 16th it had been completely drained off the entire district, and all that part of the city is now [June 22d] as free from bad odors and injurious deposits from the overflow as if the latter had not taken place."

"When it is taken into consideration, that the overflow took place at that particular season of the year when the heat of the sun is intense, and when is also considered the vast amount of filth, which was at the time washed up and diffused through that part of the city which comprises the Fourth Ward and is inhabited by 11,000 people (the domicils of 8,500 of whom were overflowed), it might naturally be supposed that this would cause much sickness during the ensuing summer, but thanks to timely and abundant rains with which the city was blessed, assisted by the energetic exertions of the entire Sanitary Police of the city (in insisting on the greatest cleanliness and distributing carbolic acid freely wherever needed and particularly as the water subsided), the results have been very extraordinary, as testified by the rate of mortality from malarial fevers, that

took place during the two successive years of 1870 and 1871. There were the following deaths from malarial fevers in the Fourth Ward, the only one (in the Second District) afflicted by the overflow:

1870: Remittent 5, Malarial 3, Congest. 6, Pernicius 5, Intermit. 4, Bilious 5—28
1871: " 1, " 2, " 4, " 3, " 1, " 2—13"

1881

Dr. Joseph Holt, Sanitary Inspector, First District, reported, p. 296, Annual Report for 1881, as follows: "The signal event of the year was the great overflow from the Lake of a large area, comprising the rear and nearly half the First District. Most dire and lamentable results were predicted by many as a consequence of the drying up. Deadly miasmas, intensified by the stench from the innumerable carcasses of domestic animals, fowls and particularly from decomposing schools of fish—all of this under a burning sun—were predicted. As the waters receded, I carefully inspected the ground, and was especially struck with the fact that the heretofore dirty backyards, streets and even houses, had the appearance of having enjoyed a thorough washing out, and I saw about a dozen dead animals and heard of a man who had seen a dead fish. The event of the summer would seem to suggest an overflow as a providential sanitary measure."

Dr. W. R. Mandeville, Sanitary Inspector, Second District, reported, p. 299, Annual Report for 1881, as follows: "The condition of the 'Old Basin' [i.e., the Old Carondelet Canal], particularly demands attention. The levees on both sides should be raised so as to preclude the possibility of another overflow like that which, in February last, rendered thousands of people homeless, and destroyed live stock and other property to an enormous amount."

Dr. R. A. Bayley, Sanitary Inspector, Fourth District, reported, pp. 305–7, Annual Report for 1881, as follows: "The rear of this district is particularly low and subject to overflows from the canals and New Basin [the harbor of one of the two canals], in case of high water in the Lake. The area of de-

pression was clearly defined during the inundation in the beginning of the year. The water limits could be traced, at the time, by a straight line starting from the corner of Felicity and Freret streets, and extending on up diagonally to the corner of Carondelet and Toledano streets. The section back of St. Charles street was thus shown to be in great need of grading, and especially above Washington street. When the waters from the overflow in January, subsided back of town, leaving deposits of decayed vegetable and animal matter, it was naturally supposed that much sickness would ensue, as a consequence, in the way of malarial and typhoid fevers. Contrary to expectation, the waters seemed to act in the manner of flushing, cleansing the ditches and streets of accumulated filth, and not leaving many carcasses of animals in this district. The weather was cool and dry at the time, however, which had the effect of counteracting the influence of malarias."

The Inspectors of the four other (of the present seven) districts of New Orleans do not refer, in their reports, to the overflow of 1881.

It is noteworthy, that, while Drs. Holt and Bayley fail to report the systematic and thorough disinfection and cleansing practised in 1871, but not practised at all in 1881 (to the best of my knowledge and belief), yet, they claim results no less favorable, and the mortality statistics justify, no doubt, this claim.

GENERAL CONCLUSION.

The evidence, now presented, records all the facts and views pertinent to my subject, which I have had time and means to collect. They fail to indicate that the partial inundations of New Orleans have ever influenced unfavorably its mortality, whether by yellow fever, by cholera, by malarial fevers or by diseases generally. On the contrary, the evidence, though imperfect and not fully conclusive, justifies the inference, that the deposit and decomposition of filth, and any other promoters of disease which may be due directly to inundations, are more than counterbalanced by the flood, which first covers up the soil, from whence springs so much disease, and then helps

to cleanse it. If New Orleans were kept always perfectly clean, which, far from the case now, was less so in remoter times, the influence of an overflow might then prove to be comparatively injurious.

The author of the above article has procured a few reports from physicians in the country upon the influence on health of overflows in rural districts, and, wishing to compile an article on this branch of the subject, would be greatly obliged for any contributions thereon.

TABULAR STATEMENT OF TWELVE INUNDATIONS OF NEW ORLEANS, WITH

Years of Overfl'w	CAUSE. Whether by the Mississippi River or by Lake Pontchartrain.	DATE.	MAXIMUM EXTENT on Canal st. A Central st. running from River to Lake.
1816	Miss. River, McCarty's Crevasse at Carrollton.	May 10th to June 6th	Dauphine st., 8 squares *from the river-front.*
1831	Lake Pontchartrain...	August 17th to ?.....	Dauphine st.
1837	" "	October	?
1846	" "	April 6th to about 12th	Burgundy st., 9 squares from the river-front.
1849	Miss. R., Sauvé's Crevasse above Carrollton	May 3d to June 22d...	Bourbon st., 7 squares from the river-front.
1856	Lake Pontchartrain...	August 13th to ?.....	Claiborne st., 17 squares from the river-front.
1861	" "	Ab't 10 d'ys early in Oct	Rampart st., 10 squares from the river-front.
1862	Miss. R., Crevasse in 6th District	May 10 to ab'ut July 1	Limited to a small part of the rear of city above Toledano street.
1868	Lake Pontchartrain...	First week of October.	Burgundy st., 9 squares from river-front, for a few hours.
1869	" "	Sept. 5, for a few days.	Limited to a small part of the rear of the city.
1871	" "	3d to 16th June	Rampart st., 10 squares from river-front.
1881	" "	7th to about 19th Feb.	Marais street, 14 squares from the river-front.
1882	B'ckw'ter fr'm Miss. R.	May 11th, maximum, to May 24th.	Rear of Algiers or 5th Dist., Gretna and Gouldsborough.

NOTE.—A well informed citizen alleges, that two overflows, (of which I have found both lasted about one week, about the last of September. In 1853, the year of there were 10,564 deaths, of which 2425 by Yellow Fever; in 1855, there were 10,096 decreased, as usual, after October 1st, the reported approximate date of the alleged

Total Annual Deaths.	Deaths in the Preceding and Succeeding non-overflow Years.	REMARKS.
651	1252 in 1815, 1772 in 1817.	Epidemic Yellow Fever in 1817.
1926	2022 in 1830, 8099 in 1832.	Y. F. in 1832, also the first and the most violent Ep. of Cholera ever in N. O.
4807	2734 in 1836, 2606 in 1838.	Violent Ep. of Y. F. in 1837.
4220	2783 in 1845, 9043 in 1847.	Floating Pop. much increased by Mexican War in 1846–7, and violent Ep. Y. F. in 1847.
9862	8026 in 1848, 8086 in 1850.	In 1849, Cholera caused 3176, and Y. F., 752 deaths.
5689	10,096 in 1855, of which 2670 by Y. F., 5581 in 1857.	For the 4 months, Sept. to Dec., 1956 deaths in 1856, and 1898 in 1857.
5772	7341 in 1860, 6278 in 1862.	War between the States.
6278	5772 in 1861, 7172 in 1863.	" " " "
5343	10,096 in 1867, of which 3107 by Y. F., 6001 in 1869.	For the 3 months, Oct. to Dec., 1498 deaths in 1868, 1602 in 1869, and 1904 in 1870, of which 353 by Y. F.
6001	5343 in 1868, 7391 in 1870.	
6059	7391 in 1870, 6122 in 1872.	For the 6 months, July to Dec., 3276 deaths in 1871, and 2912 in 1872.
6406	5623 in 1880.	

no published records), occurred from the Lake, one in 1853 the other in 1854 or 1855, that "*the great epidemic*," there were 15,787 deaths, of which 7849 by Yellow Fever; in 1854 deaths, of which 2670 by Yellow Fever. In all these years the epidemics and the deaths overflows.

Annual Message of the President,

J. B. Gaston, M. D., of Montgomery.

The acknowledged influence of this Association is due to its admirable organization. Its reputation rests very largely upon the legislation which it has secured at the hands of the General Assembly of the State. This result, be it understood, however, has not been accomplished by the individual or combined personal influence of its members. Nor can it be attributed to a progressive spirit in the General Assembly with regard to the protection of public health. With due respect for the intelligence and patriotism of that body, I must say that it is not claimed that Alabama has taken the lead of her sister States in any other department of legislation. The "Act to regulate the practice of medicine in the State of Alabama," the "Act to establish Boards of Health in the State of Alabama," the act appropriating money "to carry into effect the health laws of the State," and last the act providing for "the supervision of public health and the collection of vital statistics," have all been accomplished by a candid and systematic discussion of their merits with many individual members, and also with the committees having them in charge. Some of these measures had able and active support on final passage from members who had originally been strongly prejudiced against them. An appeal to the judgment and understanding of the General Assembly has availed us in the past, and it will continue to do so, if our measures continue to have merit in them. If our General Assembly was a stable body as regards individual membership, a point once gained would be settled: but with an ever-changing membership the work, like "freedom's battle," must be "bequeathed from sire to son," if we expect to continue in the good way in which, thus far, we have so auspiciously trod.

These considerations and the persevering attack on the act appropriating money "to carry into effect the health laws of the State," made during the last session of the General Assembly, have induced me to premise the recommendations for legislation in regard to certain matters which will appear in

the sequel, by a discussion of the duty of the State to appropriate money to protect the public health.

The medical profession is not specially interested in this matter, except as it is composed of citizens who, by reason of their profession, happen to be exceptionally familiar with the interests of the people in regard to this department of legislation. It is a duty which the lawmaker owes to the people whom he represents; and its performance is a partial discharge of an obligation arising out of the ultimate purpose of government everywhere. If I understand it aright the great objects of government are to protect the persons and the property of the people—to protect, not against any particular kinds or special sources of danger, but against all dangers and all sources of danger, no matter whence they come, provided only that the protection is practicable. If this be true, the obligation to protect the persons of the people against the injury and death, and their property against the depreciation and destruction which result from preventable diseases, rests upon exactly the same basis and is just as binding, as the obligation to protect their persons and their property against the assults and depredations of wicked and lawless men. It is not an uncommon error, I fear, to suppose that the obligation to protect against disaese arises out of sentiments of charity and sympathy for afflicted humanity; and, doubtless, many honorable members of the General Assembly could be found who feel that the State, in appropriating money to such objects, contributes to a great public charity; and that they, in voting for such appropriations, discharge an obligation somewhat akin to that which they perform when they drop a penny into the hand of a blind beggar whom they pass upon the street. That there are obligations arising out of these sentiments of charity and humanity no one will deny, and their performance is honorable alike to individuals and to States; but the obligation, the recognition of which we urge and the performance of which we invoke, rests upon no such unsubstantial basis. It arises out of the very ends for which government is organized, and as before remarked, the duty of protecting against the invasions of preventable diseases rests upon the same ground and is just as

imperative as that of protecting against the assaults and depredations of lawless men.

The latter obligation has always been recognized by governments. The dangers provided for by criminal and civil codes are tangible, and so striking that they have attracted the attention of law-givers in the rudest states of society. The impalpable and invisible germs of disease, however, which have their homes in "the illimitable kingdoms of the air" and are wafted in upon communities on "the wings of the invisible swift winds," were long regarded as the ministers of the judgments of an offended Providence, from which relief should alone be sought on bended knee at a throne of grace. Traces of this philosophical heresy still exist and, giving color to opinion and act, are responsible for much of the lethargy and seeming insensibility which obtain with regard to legislation against dangers of this kind.

Do we expect ever absolutely to prevent these diseases? I answer unhesitatingly in the negative. We offer no such Utopian result. Do law-givers when they enact the civil and criminal codes, expect ever to secure an absolute reign of law! Certainly not. There will always be crime; there will always be violations of the civil and criminal codes; and so too there will always be invasions of diseases in derogation of sanitary law. They hang like armed enemies upon our borders; they spring up like dragon's teeth from our soil. The field for the administration of the sanitary law is, however, quite as inviting and the rewards, pecuniary and social, are quite as rich as in the administration of the civil and criminal laws. An appeal to the cost of epidemic and other preventable diseases, which have prevailed in this State, and to the annual absolute saving of money and protection of commercial prosperity which have been secured by the administration of sanitary law during the last few years—both of which could be itemized and expressed in dollars and cents, to say nothing of the prevention of suffering and death and the saving of much valuable time—such an appeal and such an exhibit as was made by a distinguished predecessor in this office with regard to the "sanitary

needs of the people of the State" in 1874, would satisfy the most conservative economist on this point.

Am I reminded that the people of this State were prosperous and happy, and that population increased with great rapidity years and decades before one cent had been appropriated to secure the administration of sanitary law?

In answer I point to mining districts on the frontier, where gold, the love of which, in Solomon's philosophy, is the root of all evil, and in political experience, is the cause of most crimes—to districts where gold glitters upon the shelves of unguarded and unlocked cabins, where human beings enjoy life, liberty and the pursuit of happiness; and where, forsooth, a legal process has never run and the face of an officer of law has never been seen.

That there are difficulties of administration and uncertainty of results in the execution of the sanitary law, no one will deny, but there are like difficulties and uncertainty in the administration of the criminal law. He who refuses to appropriate money for the execution of the sanitary law on account of these difficulties and uncertainty, should on account of the same kind of difficulties and uncertainty refuse to vote money for the administration of the criminal law. And conversely, he who votes money liberally and largely to execute the criminal law, notwithstanding its difficulties and uncertainty of administration, should be prepared, in view of the considerations hereinbefore mentioned, to vote a liberal and sufficient sum for the administration of the sanitary law, notwithstanding the fact that like difficulties and like uncertainty attach to the execution of said law.

Little more than half a century ago yellow fever was as familiar to the people of Boston, New York and Philadelphia as it is now in Charleston, Mobile and New Orleans. Learning early, however, that health has a money value and that epidemic diseases are the greatest enemies of commerce and the industrial arts, our fellowcountrymen of the North went resolutely to work to secure to themselves the blessings of the one and to avoid the paralyzing influence of the other. And, gentlemen, if we of the South are to be a prosperous people, health as a factor of

prosperity, and disease as a factor in the decline of prosperity, must figure more conspicuously in our political economy of the future than they have done in our political economy of the past. These doctrines must not be consigned to theoretical life and recognition in the pages of annual messages and resolutions of Boards of Health; but they must have an abiding place in the judgment and conscience of our General Assembly and an active life in the execution of laws which it enacts.

More than a hundred years ago Howard, in his work on "The state of the Prisons in England and Wales," disclosed the wretchedness, misery and injustice endured by the convict. The picture was ghastly, but it was true. A cry of horror and indignation was heard throughout the civilized world. Guilty custodians shrank from the disclosure of enormities committed under their authority. Prison discipline became a science based upon sound ethical and political principles. Torture gave way to a discipline, evincing a correct appreciation of the object of punishment, rigid, but temperate, human and just. A proscription of all intellectual and moral culture, misery of soul and body, and the ingenious cruelties of ancient and modern torture, have no place in this beneficent system.

The penitentiary should be a great reformatory. When a State becomes retaliatory, cruel and revengeful in its punishments, civilization stands weeping aside. When a State fails to limit its punishment by a proper regard for the rights—the inalienable rights—of humanity everywhere, by an equitable judgment with regard to the power which society has over its members, and by a wise and impartial consideration of the kind, degree and tendency of the means of discipline actually employed, it becomes the duty of those interested in the welfare of society to bring the matter to the notice of the proper authorities and insist strenously on reform. There is a right to punish, but there is an obligation to protect; and this obligation is nowhere more binding than in regard to the convict. He is deprived of his liberty. His mouth is sealed. He is stripped of the right of self-defence so dear to every citizen. He is naked before the pitiless justice of the law.

He has, however, some rights left him, and on the State devolves the responsibility of protecting them. He may have placed himself in the attitude of an enemy to society; but the State should not become his enemy. She should, in protecting society, recognize the true object of punishment—the prevention of crime; but she should also recognize, as a means to that end, the reformation of the criminal. Has Alabama been a protector and friend to her dependent children of crime? Let the sanitary condition of her prisons, the disregard of the physical comfort, the state of moral and intellectual culture and the mortuary record of her convicts, answer this question. I do not hesitate to say that, in all these respects, Alabama is, to state it mildly, a hundred years behind the civilization of the age. The prison ethics of this State seems to have no moral side to it. The General Assembly, the county authorities and some of those who have discussed the subject in the public press, have seemed to think that the most successful management of convicts is that which brings the largest revenues into the treasuries of the counties and the State. If this be the doctrine of the State—and practically it is so—can it be expected that anything better, that any other than a purely selfish view will be taken of the subject by those having immediate charge of the convict and his labor?

In discussing the Draconian code Plutarch says that, "for nearly all crimes there was the same penalty of death. The man who was convicted of idleness or who stole a cabbage or an apple was liable to death no less than the robber of temples or the murderer." Under the Alabama code, for nearly all crimes there is the same penalty of imprisonment at hard labor in the penitentiary, which, in more than eight *per centum* annually of those so sentenced, results in death. A man who is convicted of vagrancy, or steals a roasting ear, violates the gaming laws, or carries a concealed weapon, is liable to this punishment no less than the robber or the murderer. The unfortunate authors of these various offences may be seen working side by side in mines, eating at the same table, confined in the same cell, and sleeping in the same bed. The quality of the punishment is the same, the time varies.

It may be thought that all these matters constitute a problem involving grave questions in political science, and appealing for its solution to the student in prison ethics and political economy; and in no way concerning the sanitarian or the Board of Health. But when it is shown, as will be done in what follows, that more than seven *per centum* of those who have been sent to the penitentiary, have died of the unnecessary rigors of prison decipline, it then becomes a great sanitary evil; and as such challenges the sympathy and the active interference of the State Board of Health.

The report of an inspection of two convict prisons recently made to the Governor of the State by your Health Officer and myself, discloses many exceptionable features, in a sanitary point of view, of penal servitude in Alabama; and to it you are referred for information on all subjects of which it treats. But the evidence on which I hold up the results of penal servitude in Alabama to the reprobation of this Association and of good men everywhere, is to be found in the annual reports of the Inspectors of the Penitentiary from 1870 to 1880 inclusive, except the reports of two years, 1872 and 1876, which I have not been able to obtain. Not that said inspectors have ever found aught to condemn in the condition of the prisons or the management of the convicts. On the contrary they report, in 1870, that "the management of the prison is in every way conducted by lessees and wardens, in a lawful and humane manner;" in 1873, that they "found the convicts well fed, clothed and provided for, and seemingly as contented as possible under the circumstances;" in 1874, that the condition of the convicts "is excellent, being well fed, clothed and provided for, and as well contented as possible;" and in 1879 and 1880, that "the convicts have been generally well fed and clothed, and kindly and humanely treated, and that corporeal punishment has only been inflicted in extreme cases." These are fair specimens of the reports made by the Inspectors throughout the nine years above mentioned, and the picture presented is one which a Sir Charles Romilly or a Maconochie might contemplate with satisfaction and unqualifiedly approve.

If, however, we compare these reports with the somewhat detailed report above mentioned, based upon an inspection, made at a time when the prisoners were confessedly in as good if not in better condition than ever before; we are forced to the conclusion that time and experience have simply taught the inspectors of this period, how not to do it.

In Sing Sing, Auburn and Clinton prisons of the State of New York, the average number of convicts for 1879, was 3,379 with 41 deaths, giving a death rate 1.21 *per cent.* The average number in the Pennsylvania prisons for 1880, was 1,815 with 28 deaths, giving a death rate of 1.54 *per centum.* The average number in the Ohio penitentiary in 1881, was 1,250 with 16 deaths, giving a death rate of 1.28 *per centum.*

The average number in the Alabama penitentiary for 1880, was 597, with 42 deaths, giving a death rate of 7.03 *per centum.* The average yearly percentage of deaths in the Auburn prison for fifteen years preceding 1880, was 1.19. The average yearly percentage of deaths in the Alabama penitentiary for nine years was 8.48. From the foregoing it will be seen that the death-rate in the Alabama penitentiary for a period of nine years has been six hundred *per cent.* greater than the death-rate in the Auburn penitentiary for a period of fifteen years.

Had the death-rate in the Alabama penitentiary been the same as in the Auburn prison the number of deaths in the Alabama penitentiary for the nine years above mentioned would have been 42 instead of 297. In other words 255 convicts died during said nine years, whose deaths may be fairly attributed to the unnecessary rigors of penal servitude in Alabama.

They were sentenced to hard labor in the penitentiary; and they have been put to death.

From the same source I also learn that one hundred and fifty homicides have been sentenced to the penitentiary during the nine years mentioned above.

Whilst one hundred and fifty men have fallen victims to the lawlessness of private citizens, two hundred and fifty-five have perished by the recklessness of the State. The evil passions of all the bad men who have been tried and convicted by the

courts, have not been nearly so destructive of human life as have been the misguided efforts of the State to protect society.

I would not arouse a morbid sensibility on this subject; I would not have convicts regarded as the "innocent victims of unjust laws." It is admitted that punishment should be exemplary as well as reformatory; and I would not have the system characterized by so much lenity as to make the condition of the convict in the least degree desirable. But that it may accomplish the real ends of punishment, whilst it should be strict, it must needs be just and humane. It should regard not simply the physical endurance, but the health and the lives and the moral and intellectual susceptibilities of the convict.

Every convict at all able to analyze the situation knows that only those rights should be taken from him which cannot be left with him without danger to society, and only such punishment should be inflicted as may be necessary to enforce such decent rules of life as may be prescribed, and to compel him to make approximate restitution for the injury done society and to support himself while doing it. Such a system commends itself to the good judgment and philanthrophy of right-minded men everywhere; and when properly understood, as it always should be, must be accepted as a system of fair dealing by the convict himself. Such a system has succeeded elsewhere. It can succeed here. Neglect and disregard of the elements of a good system of penal servitude, bad sanitary conditions in clothing, quarters and food, excessive tasks and the punishment necessary to enforce them, unnecessary restraint of body, chaining and packing hard-worked men to bed like sardines in a box, the withdrawal of every stimulus to intellectual activity, the repression of every ennobling aspiration of the soul, not only injure the health and shorten the life, but beget a sense of injury and injustice, and a desire for revenge, which are at war with and subversive of the great objects of punishment. A bad act—an act which demands punishment—is not conclusive of a mean and depraved spirit. Good men have done, and good men will again do, very wicked things. Let the State punish its criminals, but let it not en-

tirely degrade, demoralize and destroy them. "Must crimes be punished by greater crimes and greater criminals?"

Sana mens in sano corpore expresses the equilibrium which constitutes health; and a State, when it takes absolute control of a man,—soul and body,—requires for a proper discharge of its guardianship a thoroughness of appreciation of the situation, a degree of wisdom and thought and a time-taking and pains-taking adjustment of means to ends, which have been wickedly neglected in Alabama, and have rarely, anywhere, been brought to the solution of the problem of the proper management of convicts.

The sanitary supervision of the public institutions of the State has hitherto entirely escaped the notice of the State Board of Health. Whilst the county Board of Health of each county has, in response to a memorial of this body, been charged by the State "with a general supervision over the sanitary regulations of all the public institutions of the county," no provision whatever has been made for the supervision and control of the sanitary condition of the public institutions of the State.

The "act to establish boards of health in the State of Alabama," which "constituted" this association "the Board of Health of the State of Alabama," perscribes that said board "shall from time to time make to the General Assembly such suggestions as to legislative action as in their judgment may seem advisable." I, therefore, recommend that this body do memorialize the General Assembly to give to it concurrent supervision with the county Boards of Health over the sanitary regulations of the public institutions of the counties, and also a general and direct supervision over the sanitary condition and regulations of the public institutions of the State, including hospitals, asylums, prisons, schools and such other institutions as this body, in its further consideration of the subject, may see fit to recommend. I also recommend that this Board memorialize the General Assembly to constitute the State Health Officer an inspector of the penitentiary and county prisons of the State, with such powers as may be necessary to make him an

efficient guardian of the sanitary condition and interests of the prisons and convicts of the counties and of the State.

For very important reasons, which are obvious to this association, I further recommend that the General Assembly be memorialized to place the sanitary condition of private schools throughout the State, which are now entirely exempt from inspection, under the supervision of the county and State Boards of Health. I hope that the importance which I attach to this subject will not be estimated by the brevity of the notice which I give it.

"To promote professional brotherhood, and encourage a high standard of professional ethics," is one of the avowed objects of this Association.

Different interpretations of certain articles of the code are by no means rare; and when the rule of action differs conduct will differ; and when conduct differs, misunderstandings are apt to arise. Consultations not unfrequently afford an illustration of these truths. It is not uncommon for the attending physician to invite or not invite the consulting physician to a future meeting, according as his inclination, or his ideas of the fitness of things may dictate; and with the polite remark, "If the patient does not get along well, I will get you to see him again," he assumes absolute control of the further attendance of the consulting physician. This course, erroneously I think, he conceives to be legitimate and right. The correct interpretation of the code on this point is, in my opinion, contained in the following proposions; and I submit them for the consideration of the Association:

1st. When consultation is required, the sick person becomes the patient of both the attending and consulting physicians, "the responsibility is equally divided between the medical attendants;" and being equally responsible, "they must equally share the credit of success as well as the blame of failure."

2d. The consulting physician being equally responsible with the attending physician, bears, as regards the right to determine his attendance upon the case, the same relation to the patient that the attending physician does, namely, the continuance of his attendance depends on his own discretion, or

the expressed wish of the person by whom his services have been engaged.

3d. When the attending physician of his own motion, uninfluenced by any suggestion or supposed wish of the person engaging his services, the patient, or the family, unqualifiedly asks for a consultation, then the continuance of the attendance of the consulting physician depends on the discretion of the consulting physician, or the wish of the attending physician. But "the good of the patient, which is the sole object in view," and common courtesy, alike demand that the right of discharge, which is usually accomplished by a failure to invite the further attendance of the consulting physician, should only be exercised in those "special consultations," which "sometimes occur," but are evidently regarded by the code as exceptional and rare.

4th. At the close of each consultation, the attending physician should propose that a time be fixed for the next visit and consultation.

About two months ago, the profession was surprised by the announcement, that the Medical Society of the State of New York, at its seventy-sixth annual session at Albany, had concluded for the future to disregard the provision of the code of ethics of the American Medical Association, which declares that "no one can be considered *** a fit associate in consultation, whose practice is based on an exclusive dogma to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

The rule of the Medical Society of the State of New York is as follows: "Members of the Medical Society of the State of New York, and of the Medical Societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity." That all ethical rules should be in harmony with and conduce to the best interests of the sick, is the key-note to the code of ethics; and that "emergencies may occur in which all restrictions should *** yield to the demands of humanity—

a proposition which seems to have been announced as the shibboleth of this New York party, which aspires to the reputation of extreme progress—is really a truism to which every enlightened physician may subscribe. I hold that all restrictions should yield not only in emergencies, but at all times, to the demands of humanity; but I deny that humanity or any other consideration which has for its object the welfare of the sick does or can ever demand that a regular physician should consult with a physician, "whose practice is *based* on an exclusive dogma to the rejection of the accumulated experience of the profession."

A decent respect for the opinion of others would have suggested, it seems to me, to the members of the Medical Society of the State of New York, that some reason which would commend itself, in no doubtful way, to the judgment, the experience and the philantrophy of the thoughtful medical men every where, should have accompanied the publication of this very remarkable rule. None, however, has been given; and I must confess that I am unable to conceive of any consideration for its adoption, which could be mentioned consistently with the respect which I entertain for the probity, learning and distinguished reputation of many of the members of the Medical Society of the State of New York. This rule appeals in vain either to enlightened sentiment, or to practical wisdom.

John Seldon, long ago, said "no man is the wiser for his learning;" and after considering the fact that this rule has received the endorsement of so many distinguished and learned men, I am forced to the conclusion that the paradox has, at least, one notable illustration.

Let us divest this rule of the glamour of sentiment which has been thrown around it by a specious, but utterly sophistical appeal to humanity, and inquire if there are not serious, nay, insuperable objections to it, which rest upon rectitude of purpose, fair dealing and humanity itself.

The records of this Association, and the history of recent medical legislation in this State, and especially the history of the "Act to regulate the practice of medicine in the State of Alabama," show incontestibly that we entertain no proscrip-

tive spirit toward any class of physicians or system of medicine. Our mission has been, not to tarnish the escutcheon ofothers, but to brighten our own shield. We do not consider it necessary either to depreciate the attainments of the practitioners of exclusive systems, or to disparage the systems themselves. But we hold that no consideration involving the best interests of the sick can demand that two gentlemen, entertaining diametrically opposite views with regard to the action and fundamental principles of medicine, should meet in consultation with reference to the medical treatment of the sick. It is true that two such physicians might exceptionally agree as to the remedies to be used in a particular case; and disagree utterly with regard to the effects to be expected from said remedies; but these rare exceptions could produce no good results; and I have yet to learn that lawgivers, either wise or otherwise, have ever before made exceptions the basis of a rule. Honesty, fair dealing with the patient and humanity require that physicians, who are known to hold irreconcilable differences of opinion with regard to the principles of medicine and the daily results of experience, should not consult together. It may be said, and truthfully too, that some so-called homœopathists do avail themselves "of the accumulated experience of the profession and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry," just as regular physicians do. If so, they are not homœopathists, and if they wear the doctrines of an exclusive system, as a trade mark, to deceive those who trust to their professions, they are not only not homœopathists, but they are not gentlemen. They are dishonest tradesmen, and are unworthy the recognition of the good men of any system of medicine.

I have great respect for honest differences of opinion with regard to the principles and practice of medicine, which the intelligent and cultivated of different systems may hold; but I entertain neither respect nor toleration for those who profess the doctrines of an exclusive system, and intentionally, constantly and systematically, disregard them in practice. These are the irregulars with whom we could get along very harmo-

niously in consultation; but they are also the tricksters who ought to be hurled over and far beyond the outer walls of professional courtesy.

England's great dramatist tells us that—

"Rightly to be great,
Is not to stir without great argument;
But greatly to find quarrel in a straw,
When honor's at the stake."

This, gentlemen, is a case—

"When honor's at the stake,"

and in such a case I feel assured that, if need be, you will be ready—

"Greatly to find quarrel in a straw."

Current Medical Literature.

ANTAGONISM BETWEEN TYPHOID FEVER AND PULMONARY TUBERCULOSIS: PREVENTION OF THE LATTER BY INOCULATION WITH THE VIRUS OF THE FORMER.

Dr. T. H. Buckler, of Baltimore, in a communication to the *Boston Medical and Surgical Journal*, dated at Paris in Dec. 1881, announces the above rather startling doctrine. He supports the theory by some individual examples of recovery from the early stage of pulmonary consumption after the supervention of typhoid fever, and by figures from the reports of the Registrar-general of England, which show a larger mortality from consumption in the years 1869, '70 and '71 than in the years 1776, '77 and '78, which latter were marked by an increased mortality from typhoid fever. He concludes as follows:

FOLLICULAR DISEASE.

Having endeavored to show that occurrence of the phenomena grouped under the classic name of typhoid fever and numerous other synonyms, will, by abolishing the tuberculous diathesis, not only ward off and prevent phthisis, but arrest and shunt on to the track of convalescence incipient and progressing cases of this malady, it may not be out of place here to state that, in my belief, this great constitutional reformer, typhoid disease, cures also chronic inflammation and hyperplasia of the mucous follicles in whatever part of the inner

lining membrane they may be seated. The diseases caused by this pathological condition of the mucous follicles, and named according to locality, faucial, follicular disease—stomatitis, follicular pharyngitis, granular, or granulated sore throat, follicular gastritis, or dyspepsia, or follicular enteritis,[1] follicular colitis, etc., I have been accustomed to regard as amongst the *opprobria medicinæ*, since this morbid condition of the follicles exists in many cases from infancy to old age, and I have never seen the chronic form of them cured by therapeutic means of any sort, but have only seen them palliated, or for a time improved by the use of certain agents, notably by the mild sulphur waters. But by typhoid fever I have repeatedly found the enlarged mucous follicles, wherever situated, reduced to their normal size, and brought back to a healthy performance of their functions.

Remarks.—My desire in writing the preceding has been to suggest:—

(1.) The importance of intestinal inoculations with the object of inducing typhoid fever and thereby preventing a recurrence of this disease in after life, and to prove that by this method alone, once successfully applied, the prophylaxis of continued fever, typhoid disease, is rendered complete, and that typhoid fever would indeed appear to be a more powerful alterative and detersive than any other known means, repairing in many cases errors of constitution growing out of morbid consanguinity.

(2.) That the rôle of phenomena in typhoid fever once experienced annuls tubercular diathesis, and is the only trustworthy guarantee against phthisis.

(3.) That in mild incipient cases of phthisis the tuberculous diathesis is subdued, and the disease arrested by the supervention of typhoid fever, and therefore, to induce the latter, intestinal typhene inoculation would appear in many cases to be the only remedy for consumption.

(4.) Since most members of many families suffer more or less all their lives with follicular diseases, typhoid infection or inoculation, as a means of radically restoring the mucous follicles everywhere to a healthy performance of their functions, and thereby preventing or abolishing the diseases in question, would seem to be of the greatest importance.

Instead, therefore, of waiting, as I have done, a lifetime for rare coincidences where this supervening curative and vicarious disease arriving arrests or supplants the otherwise irremediable maladies, as well as for the concurrent ideas of others in regard to its prophylactic and therapeutic powers to germinate, would it not be well that physicians so situated as

1 The significant names given to this disease by Andral because its seat is in the mucous follicles, and not in the free mucous membrane in which they are everywhere embedded.

to be able to follow the investigation scientifically should, with contagion procured from the mildest cases to be found, institute a series of typhoid inoculations in the young for comparative study? From the dealer in infected milk a hint may be taken as to the method of inoculation.

In stationary France, with prolific Germany on her border, population is getting to be an economic question, not less important to the future of the Gallic race than agriculture and manufactures, and as the lives of men are coming to be considered as valuable as those of sheep and silkworms, it is to be hoped that M. Pasteur, with his rare genius and extreme ingenuity, will take an interest in the work by cultivating in milk or chicken broth the inoculable contagia of typhoid fever, and it would be well if Dr. Creighton and Professor Eberth, of Zurich, would devote their time and talents to the same object, in order that the inoculable *materies morbi* of continued fever may be had in all places, at all times, and in the most proper and convenient form.

SYPHILITIC INFECTION OF THE FINGER IN MEDICAL MEN.

Prof. Fessenden N. Otis, M. D., communicates to the *Independent Practitioner* of March particulars of eight cases of syphilis contracted by physicians in making digital examination of the vagina of syphilitic women. The initial lesion of this form of syphilis is described as being uniformly a papule, "coming soon to be of a deep red color, and presenting a superficial abrasion, becoming circular and deeper by a slow molecular necrosis; not by ulceration with formation of pus; the secretion thin and serous, and drying into a scab which is soon displaced by the fluid accumulating underneath." He also remarks "the entire absence of induration; in its place a slight, flat, juicy-looking, boggy swelling, or elevation, about like a small peppermint in size and thickness."

As proof of the efficacy of treatment, which was continued in five of the cases for one and a half to two and a half years, he states that subsequently "eight healthy children have been born, and both they and the parents have continued free from any evidence of syphilis."

TREATMENT OF SYPHILIS BY POTASSIUM BICHROMATE.

The *N. Y. Medical Record* of April 1 contains an account of this method of treatment, according to the plan of Dr. J. Edmund Güntz, of Dresden, who announced it in 1869. After trying various modes of exhibition, he has found the most eligible its solution in carbonic-acid water, giving as a maximum about 3½ grains daily in 5 doses. This could be continued for months without inconvenience. His method is to give the

remedy during the initial stage, and of 85 cases regarded as truly syphilitic 49 never presented secondary symptoms, When given after the appearance of constitutional symptoms, he found it more efficient and prompt in action than mercury. He has used this remedy already in more than 1000 cases, to the exclusion of mercury, and supposes that it acts by its oxydizing properties, which it certainly possesses in a high degree, owing to its unstable composition.

Dr. Güntz also claims the best results from the same remedy in diphtheria.

[It is evident that the above claims should not be implicitly received, owing to abundant chance for error in diagnosis. We well understand the uncertainty of the nature of venereal sores until the appearance of secondary manifestations, and that several kinds of sore throat are called diphtheria by those who aim to secure credit for themselves or for their remedy.]

NITRO-GLYCERINE IN HEART DISEASE.

In the February number of the *Practitioner*, Mr. W. E. Green, M. R. C. S., gives his views on this subject, illustrated by notes of actual cases. The preparation used is a one-per-cent solution in spirits of wine, and the commencing dose is one minim of this solution in water. It may be given every 4 hours, and the dose is sometimes gradually increased to 15 or 20 minims.

The effect is very rapid, generally beginning within 3 minutes. "The face flushes, the temples throb, the pulse becomes dicrotic and much quickened; in some cases the head aches most violently, but in others only a sense of fulness and pain across the forehead is experienced, which lessens with each recurring dose, until ultimately no unpleasant effect, but simply a warming sensation all over the body, is produced. A feeling of nausea, or even sickness, is often caused by the earlier doses.

Mr. Green regards the remedy as useful in most cases of heart disease, but particularly in angina pectoris and a weak, dilated or fatty condition of that organ. He supposes that it operates by dilating the blood-vessels, reducing arterial tension and thus lightening the work of the heart.

THE CURE OF HIP-JOINT DISEASE.

Dr. O. H. Allis, Surgeon to the Presbyterian Hospital, has read a paper before the Philadelphia County Medical Society on the above subject, of which the *American Practitioner* for May gives an abstract. Dr. Allis insists upon the necessity of preserving absolute immobility of the joint until the inflammation has completely subsided, even at the cost of anchy-

losis. He illustrates this point by relating three cases, in which he was induced to set up passive motion, after subsidence of the acute symptoms, in order to restore motion in the joint. The result, uniformly, was relapse, followed by death in two cases, with a very narrow escape in the third.

In regard to position of the limb in fixation, he compares the disadvantages of the straight extension in sitting down with the flexion at a right angle for walking; and he concludes that a compromise between the two conditions on the whole presents least inconvenience. The shortening, which follows disuse and arrest of development, is regarded as an advantage by favoring locomotion.

THE BREEDING AND DISEASES OF ELEPHANTS.

The birth of a baby-elephant and the importation of Jumbo have greatly excited the popular interest. Taking advantage of this, the *Journal of Comparative Medicine* published in its current issue an article upon the breeding of elephants, as well as an editorial note upon the diseases of this animal.

The subject of elephant-breeding is treated by Mr. Arstingstall, Barnum's trainer, who was present at the birth of the only two elephants ever born in this country. The elephant, he says, rarely breeds in captivity, largely because he is kept on a low diet. If properly fed, the male and female can hardly be prevented from copulating. The evidences of heat are a slight swelling and congestion of the vulva. The period of pregnancy is between twenty and twenty-one months. Within three months the mammary glands begin to swell, and by the end of pregnancy they are as large as those of a cow. An elephant may conceive when it is only fifteen years old. In that case it will often grow very rapidly during pregnancy.

The elephant, Queen, which gave birth to a "baby" at Bridgeport this spring, exhibited no signs of disturbance up to a few hours before the act of parturition. There was then some uneasiness shown, and the animal was isolated and chained. The infant was delivered rapidly and without any apparent suffering on the part of the mother, who stood with the posterior extremities somewhat separated. The fœtus came out head and feet foremost, enclosed in its membranes. As soon as it was dropped the mother crossed the hind legs, and by rubbing them together severed the cord. Her subsequent proceeding showed a remarkable instinctive sagacity. The little one lay quietly in its sac—not breathing, and apparently lifeless. The mother as soon as the cord was broken turned around, and with one of her fore-feet struck the membranous sac quite forcibly. It broke with a loud report (so says the trainer). After rupturing the membranes she placed her foot

on the thorax and pressed it with the appearance of much force, raised it and pressed it again until the baby began to breath and show signs of life. The elephant mother appeared to understand the principles of Sylvester's method as well as if she had taken a course at the First-Aid-to-the-Injured Society. The placenta was delivered in about two hours, the animal suffering considerably meanwhile. Five hours after birth the baby was able to stand on its feet. It walked to the mother, turned its trunk up over its head and began to nurse.

Some facts given editorially regarding the diseases of elephants are of interest. There are eighty-eight elephants in this country, valued at about $500,000. The diseases to which they are subject are a matter of some practical importance. A list is given and it is quite a long one. The more prominent affections are meningitis and apoplexy, vomiting, colic, and enteritis, hæmaturia, tetanus, pneumonia, foot and mouth disease, and anthrax. A work on the diseases of the elephant is now being written.—*Medical Record*, May 6.

A NEW METHOD OF EMBALMING BODIES AND PRESERVING TISSUES.

Dr. Virodtzeff (*Balsamirovanie*, pp. xi, 164, St Petersburg, 1881) recommends the following preparations as an efficient agent in the embalming of bodies and the preservation of tissues:

Thymol	5	parts.
Alcohol	45	"
Glycerine	2,160	"
Water	1,081	"

It is cheap, innocuous, free from unpleasant odour, possesses the property of keeping the body soft, elastic, fresh and life-like, and does not ruin instruments. Thymol is selected as being superior to other antiseptics, and glycerine is added, both on account of its own preservative qualities and to retard the evaporation of the fluid. For the preparation of tissues the same solution is employed. If the cadaver be quite lean, or the tissues very delicate, equal parts of water and glycerine (1,620 of each) are combined with the above quantities of thymol and alcohol. To inject a body, half its weight of the fluid is necessary. A properly embalmed cadaver may be preserved indefinitely under ordinary circumstances, gradually shrinking and mummifying without putrefaction. Specimens are either to be injected with or macerated in this fluid. Maceration must not be too prolonged; the appearance of the specimen should act as a guide. The part, after having been thoroughly cleansed with water, and prepared, may then be exposed for months to the air without losing its consistency, form and co-

lour. Permanent specimens may be enclosed in a hermetically sealed glass vessel containing a little of the same solution. Dr. Peabody has used this preserving fluid, with excellent results, in the New York Hospital Museum.—*London Medical Record*, April 15.

SEXUAL ABNORMALITIES.

Dr. Ellis, in Baltimore Medical Association (Maryland Medical Journal) reported a case of congenital absence of uterus and vagina.

Dr. Ashley referred to a case in which there was no uterus; the ovaries were present. The lady had been married for several years and was well formed and handsome, with perfectly developed breasts. She was not aware of her deformity. The vagina was represented by a cul-de-sac about 1½ inch long.

Dr. Browne referred to two cases in which post-mortems had been obtained. The first, reported by the late Prof. Thos. R. Brown, had a mere cord in place of a vagina. The rudimentary representation of a uterus was discovered with the aid of a microscope. She had had the menstrual molimen regularly and vicarious menstruation. She was married—intercourse taking place through the urethra.

The second case occurred in the practice of Dr. Peaslee, who exhibited the specimens before a medical society. Battey's operation was performed in this case. A few muscular fibres were found representing one horn of the uterus.

Dr. Monmonier had had a case also of congenital atresia, not discovered until after marriage. The breasts were perfectly flat. Coition could not be effected, and the result was separation and divorce.

Dr. Stewart referred to two cases of atresia—one in a colored woman in the almshouse, in whom, at her own most urgent solicitation, an attempt was made to open a passage to the uterus. It was a most bloody operation, but was not successful. In another similar case a lady went to Edinburgh, was there operated on, and died in consequence.

Dr. Price related the following: A beautiful young lady, in a family whom he attended, became the object of the affections of a gentleman; his attentions were discountenanced by the parents, who were aware of her sexual malformation. The suitor being importunate, Dr. P. was requested to make an examination with a view to informing the gentleman of her actual condition. He found a rudimentary penis, about one inch in length and the size of a goose-quill, through which she urinated. Beneath this little teat in the situation of the vulva there was no depression, nor even any sign of mucous membrane, the parts being smooth and covered with skin. The breasts were well developed; the voice that of a female—she sang beautifully. There were no testicles. There was ev-

idence of the possession of erotic feeling. Dr. P. informed the suitor of the result of the examination; he was nearly heart-broken by the news, and gave up business and moved away.

Dr. Johnston reported the following: He had been asked by the late Prof. E. Lloyd Howard to see a case of apparently a young man, aged about 19. He had an effeminate look and weak voice and dressed as a boy. This individual had come to learn his sex. A thorough examination was accordingly made. The mons veneris was distinct and covered with hair. There were apparent corpora cavernosa, and underneath these an aperture which communicated with the bladder. Under the aperture was a short cul-de-sac. No uterus was detectible. In each groin there was a gland-like body, believed to be a testicle. The conclusion arrived at was the individual was a male, and the explanation of the appearances found was traced in abnormalities of the fœtal development. Early in fœtal life the sex cannot be determined—the clitoris and penis being alike. If the two sacs holding the testicles remain separate, these organs may or may not descend. The spongy portion of the urethra and glans penis were absent in the case cited. The cul-de-sac might have been an excessively developed utriculus. This individual had passed for a girl up to the age of 18—associating constantly with them, and even *sleeping* with them. He even had long hair. At the age specified a thin beard began to show itself, when he cut off his hair and assumed the male attire. He had gone previously by the name of *Ann*, hence, to avoid unpleasant surprises, and at the doctor's suggestion, he was baptized by the name of *An-drew*. —*South. Med. Rev., April.*

QUININE.

1. In the present state of our knowledge there are two modes in which antipyretic remedies may be conceived to operate: first, by increasing the discharge of the pyrexial heat; secondly, by checking its production.

2. The quantity of heat discharged may be augmented by direct withdrawal (tepid water), or by facilitating the circulation through the skin (digitalis, cutaneous irritants).

3. The production of heat may be lessened by repeated cooling of the surface, and especially by the internal use of antizymotics.

4. Febrile diseases commonly owe their origin to the introduction and rapid development of substances akin to ferments. Several of these have been shown to resemble yeast in being low vegetable organisms or derived from such organisms. They enter the glands, where they undergo multiplication, increase the metabolic process, generate products of decomposition which exert a paralyzing action on the nervous system, and raise the standard of temperature throughout the body.

5. Owing to impaired action of the heart in certain stages of the disorder, or to contraction of the cutaneous veesels, the skin becomes anemic and gives off less heat than usual. The internal temperature rises accordingly.

6. Quinine, our chief antipyretic, acts by directly combatting the efficient cause of the disorder, and by checking the abnormal metabolism going on in the body. The nervous system takes no part, or only a secondary part in this operation. In intermittent fevers quinine prevents the paroxysms by attacking their infective cause. The paroxysms are not the essence —the substantive element—of the disease; they are only a symptom of it. The substantive element is the poison deposited in the colorless corpuscles of many organs, especially the spleen. There are fevers without paroxysms and paroxysms without fever. It is just those intermittent fevers which run their course without paroxysms that are the most malignant. The malarial poison rapidly causes disintegration of the tissues and the blood, and so paralyzes the nerve-centers.

7. The reduction of acute splenic tumors by quinine depends upon the adverse influence exerted by the alkaloid on the infective poison to which the morbid over-action of the spleen and its consequent enlargement are. "*Cessante causa cessat effectus.*" Even a healthy spleen may be reduced in size by large doses of quinine; the alkoloid vigorously checking the oxidation of its principal element, the colorless corpuscles. Quinine has no direct influence on the vaso-motor nerves.

8. Quinine attacks the malarial poison with especial energy; on this fact depends the so-called specific action of quinine in intermittent fevers. The same relation, but in a minor degree, subsists between quinine and the infective poison of enteric fever, between mercury and iodine and the poison of syphilis, between salicylic acid and the "irritant" in acute articular rheumatism.

9. An antipyretic which in one disease instantaneously arrests the fever may be wholly powerless in another. The difference depends on the fact that the various antizymotics act very unequally upon the individual *schizomycetes* and ferments; one will paralyze rapidly, by another they will hardly be affected.

10. The past history of the therapeutics and recent achievments in the domain of etiology and pharmacology entitle us to assume that by persistent scientific inquiry and practical observation we may succeed in discovering a specific antidote for every species of infective or septicemic malady.—*Southern Medical Record, April.*

ANALOGUES OF PTOMAINES.

We called attention, not long since, to those peculiar substances called *ptomaines*, which have effects very similar to the alkaloids. It has lately been ascertained by Bechamp, that

products having many analogies with ptomaines exist in the gastric and pancreatic digestion of many albuminoid matters. They are formed in the course of the normal digestion of these albuminoids, and are found to react with chemical agents in a similar manner to ptomaines, and to possess the same toxic activity. The importance of these discoveries, from the toxicological point of view, is certainly very great. In testing for the alkaloids in cases of poisoning, and in the experiments on animals to determine their physiological actions, the great question of the future will be, how to differentiate between them and ptomaines.—*Medical News, May* 20.

NIGHT SWEATS IN PHTHISIS.

In the Glasgow *Medical Journal* for March Dr. John M. Young says: The drug agaricus, whose influence in checking night sweating was lately brought into notice in this country by Dr. Wolfenden, of Charing Cross Hospital, has been used pretty extensively during the past few weeks in Dr. Gairdner's wards in the Western Infirmary, with extremely satisfactory results. The drug, derived from the common toadstool, is a light brown, bulky, insoluble powder, with a very nauseous taste, and on this account cannot very well be administered as such. A tincture of the strength of ten grains to the drachm was found quite satisfactory, a proportionately smaller quantity of the drug in this form being required to produce equal effects. Finally, a principle, which may perhaps be called *agaricine*, crystallizing in long needles, like those of strychnine and other alkaloids, was extracted and administered in pill form, each pill containing one-half of a grain, and one or two forming a dose, according to circumstances. This is perhaps the most acceptable form in which to administer the drug, and the therapeutic effects obtained have been practically the same. These therapeutic effects are classed as follows:

1. Night sweating becomes proportionately lessened, according to the amount of the drug administered; and, if sufficient doses be given, becomes effectually checked or prevented, according to the time of administration.

This was observed to be the absolute rule in all moderate cases of phthisical night sweating where it was tried, and in one case, where the sweating was colliquative, agaricus brought the sweating within moderate limits; though probably, if sufficient doses had been given, it might have cut it completely short. In other cases of sweating not dependent on phthisis the drug was found to work well; indeed, its most notable effect was observed in the case of a patient who had had sweating of the right side of his body and right leg persistently, at night, for eight months, and in which a dose

of ten grains stopped the symtom for a night almost at once.

Indeed, in the quickness of its action, agaricus resembles atropin. Like atropin, too, the effect is not permanent. In some cases, during the second night, sweating was found to be reduced below its average amount, or even entirely absent; but in the majority of cases, unless the drug was repeated, sweating returned as intensely as ever, and repetition of the drug during a considerable period does not appear to lead to any permanent result. Observation rather points to the necessity of gradually increasing the dose under such circumstances.

2. The effect of the drug against sweating is not more marked than its effect in promoting sound sleep, and relieving troublesome cough, especially of phthisis. This is the most notable fact to the patients themselves, a gradually increasing feeling of drowsiness following its administration in most cases, and this I can confirm from personal experience. In one case in particular, characterized by extremely troublesome and painful coughing during the night, to combat which numerous remedies had been tried with little or no effect, after the first large dose of tincture of agaricus this symptom became entirely subdued, and the patient had sound sleep. Her cough has since been effectually kept under by the remedy. In another case of severe spasmodic cough, of nervous origin, agaricus gave considerable relief when first administered.

The antihydrotic and soporific effects of the drug are probably distinct from one another, and not to be related as cause to effect, since, in some of the cases observed, sweating was always complained of as occurring *during* sleep, the body being covered with perspiration on awaking. Cessation of cough may, however, be the result of the soundness of sleep.

3. Strict investigation seemed to show that the drug has considerable influence in reducing the temperature, in cases of phthisis at least, where the fever is unstable, as much as two degrees of a fall having been observed within half an hour after administration of 1-12 of a grain of agaricine. Such a marked result was not always obtained by repetition of the experiment in different cases; but the fall observed in this way averaged 1.4°, and had its expression in a relieved feeling on the part of the patient.

Along with the effect on temperature, it may be noted that the rate of the pulse becomes usually reduced to a corresponding degree, but this effect has not been invariably noticed.

Reasoning from the analogy of the effect of nitrite of amyl on the blood pressure, I compared, in five or six cases, sphygmographic tracings immediately before and half an hour to an hour after the administration of the drug. I was not sur-

prised, however, knowing the difficulty of registering fine differences in pressure by means of a sphygmograph, to find in most cases no discernible difference. In one case, nevertheless (probably one of more than usual susceptibility to the remedy) several trials showed that the tracings of the pulse, which, when uninfluenced, had a decided leaning toward the characters of dicrotism, after the administration of twenty grains, came to assume characters pointing to greater tension, the aortic notch diminishing or entirely disappearing. The rate of the pulse at the same time fell from six to twenty beats. These observations may have some bearing on the rationale of the effects of the drug, but they are far from free from the chance of fallacy.

Since the administration of the tincture was begun, complaints of sickness were only heard in *one* case, in which the drug had been given over a considerable period. Diarrhœa was only occasioned once, and that in a case where this symptom recurred at intervals, independently of the drug. Its laxative action, indeed, was noticed by some patients as very satisfactory. Dr. Wolfenden found that such diarrhœa could be averted by combination with one or two grains of Dover's powder. No other bad effects have been observed.

Good results have also followed its use in some of the other wards in the Western Infirmary. A sufficiency of the principle of the drug has not yet been obtained to make up a solution for hypodermic injection. Probably the effects following on this method of administration will be even more decided.

No comparative trial of its merits as against other medicines with similar effects was made, the object sought for having been rather to confirm it as a drug at once innocuous and thoroughly to be depended upon against night sweating when administered by the mouth.

Dr. Wolfenden's remarks on this point may be quoted in conclusion: "Having made extensive trial of these remedies commonly in vogue for checking the debilitating night sweats of phthisis, I have found many sadly wanting, and only *one*—viz., atropin—that yielded really excellent results. Given in 1-70 of a grain doses it rarely fails. But atropine is a drug of great power, and capable of producing great physiological effects; and, although accidents are very rare, such an accident as an over dose might easily occur, and dispensing is not always faultless. * * * The complete success of agaricus has led me to consider it of value equal to atropin, and superior to atropin, from the fact that it is quite innocuous. * * * I believe it to be a preparation worthy of extensive trial and of such equal efficacy with atropin that it may supplant it."—(*Phil.*) *Medical and Surgical Reporter.*

NITRO-GLYCERINE IN THERAPEUTICS.

Prof. Kroczynski, of Cracow, in the *Wien. Med. Woch.*, gives the following observations on nitro-glycerine:

In six persons afflicted with attacks of bronchial asthma in consequence of extensive emphysema of the lungs, the nitro-glycerine controlled or lessened very materially the attacks of difficult breathing in the course of a few minutes, seldom later than a quarter of an hour, if taken at the beginning of an attack. After using the nitro-glycerine regularly for some time the attacks wholly disappsared in four out of the six.

In thirteen casesof idiopathic nervous as thma thesuccess was really little. Of the thirteen cases there was almost no improvement in seven, two of which occurred in hysterical persons, in four the benefit was doubtful; but in two, accompanied with bronchial catarrh, it was positive.

In two cases of steno-cardia caused by aortic aneurism, the remedy acted very promptly, for the attacks disappeared each time soon and fully. By a lengthy and methodical use of the drug the attacks ceased altogether in one of the cases.

In three examples of palpitation of the heart the result was extremely satisfactory. In two, which were clearly of nervous origin, the palpitation disappeared completely on the repeated exhibition of the drug; in the third case, where an insufficiency of the semi-lunar valves of the aorta existed, the attacks ceased for the time after the occasional use of the remedy at their commencement.

In six cases of angina pectoris, the results were very doubtful in one, while in the remaining five they were excellent. A few minutes after giving the nitro-glycerine the angina fully ceased or became greatly modified. Prophylactically the remedy was of no use, if there was any anatomical derangement in the heart or vessels; but if of nervous character it was of considerable value.

In a case of chorea minor, which existed for two years in a congenitally chlorotic maiden, the treatment with bromide of zinc and other agents was quite unsuccessful. On giving nitro-glycerine the abnormal gait became less and disappeared completely in twenty-five days. There was great increase in body weight. Against hysteria major, mercurial tremor, and diabetes mellitus, this agent appeared quite useless.—*Canada Med. Jour., May*, 1882.

HART ON THE PROPAGATION OF TYPHOID, SCARLATINA AND DIPHTHERIA BY MILK.

Mr. Ernest Hart, of London, has recently given a tabular review of seventy-one epidemics that have been attributed to infected milk. Three diseases he recognizes as capable of being so propagated, and they are typoid fever, scarlatina, and

diphtheria. At the same time that he limits the agency of milk to this small number of diseases, the probability of others, that are cognate, being conveyed by the same medium, is thought to be strongly indicated. The total number of cases in the epidemics is stated to have been in round numbers: for typhoid, 35,000; for scarlet fever, 800; and for diphtheria, 500. Though at first much scepticism prevailed about this peculiar method of disseminating infection, Mr. Hart thinks that now its acceptance as a fact is practically demonstrated. He freely admits that the proof of the contamination could not be shown in every epidemic, but this is held to be immaterial, the records showing unmistakably that there was an incidence of disease upon the customers of a particular dairy, while their neighbors in the vicinity, living under otherwise similar conditions, escaped wholly or in great part.

As regards typhoid fever, the milk was more commonly poisoned by the soakage of the specific matter of typhoid excrement into the well-water used for washing the milk cans, perhaps by the actual dilution of the milk with the tainted water. Other ways in which the careless or filthy habits of the milkers, who at the same time were attendants at the sick-bed of typhoid patients, could accidentally soil the cans, the milk, or the water, naturally suggest themselves. In the matter of scarlatina, it was found that in the majority of instances persons employed about the dairy were at the same time caring for persons ill of scarlatina, and the ease with which the branny dust of the disease could find access to the milk is readily recognized. In diphtheria, the matter was wrapped in some obscurity. Prior to 1878, it had not been suspected that the infection could be communicated by milk, but since that time Mr. Power had traced six epidemics to this source, and yet in each instance the exciting cause was never made clear. As a deduction from this very important *résumé*, the regulation and inspection of milk farms and depots are strongly urged upon the notice of legislative bodies.—*Trans. of Internat. Medical Congress*, vol. iv., 1881. (N. Y.) *Medical Record*, April 29.

STATISTICS OF CONSUMPTION.

From the Providence *Journal* we note that the statistics of consumption in Providence, R. I., as given in the last two monthly reports of the City Registrar, shows some very surprising and interesting results. Dividing the population and the decedents from consumption into two classes, American and Foreign, *by parentage*, the statistics show that in one class a remarkable change in the mortality from the disease has been going on during the past twenty-five years. While the proportion has greatly diminished among the population of American parentage, it has remained nearly stationary among those of foreign parentage, as the following table demonstrates:

POPULATION OF AMERICAN PARENTAGE.

1856—One death from consumption in 268.2.
1865—One death from consumption in 310.1.
1875—One death from consumption in 415.0.
1880—One death from consumption in 435.2.

POPULATION OF FOREIGN PARENTAGE.

1856—One death from consumption in 262.6.
1865—One death from consumption in 248.8.
1875—One death from consumption in 288.4.
1880—One death from consumption in 268.0.

TOTAL POPULATION.

1856—One death from consumption in 266.
1865—One death from consumption in 280.
1875—One death from consumption in 336.
1880—One death from consumption in 326.

From this we note that in regard to the total population there has been a considerable decrease in the ratio of mortality. It would be interesting to inquire into the causes of this diminution of consumption among a portion of the population; and the reasons why this diminution is in one portion of the population and not in the other.—*(Phil.) Medical and Surgical Reporter*, April 29.

IODIDE OF POTASSIUM IN FRONTAL HEADACHE.

Dr. Haley states, in the Australian Medical Journal for August, that for some years past he has found minimum doses of iodide of potassium of great service in frontal headache. A heavy dull headache situated over the brow, and accompanied by languor, chilliness, and a feeling of general discomfort, with distaste for food, which sometimes approaches to nausea, can be completely removed by a two-grain dose dissolved in half a wineglass of water, and this quietly sipped, the whole quantity being taken in about ten minutes. In many cases the effect of these small doses has been simply wonderful. A person who a quarter of an hour before was feeling most miserable, and refused all food, wishing only for quietness, would now take a good meal and resume his wonted cheerfulness. The rapidity with which the iodide acts in these cases constitutes its great advantage.—*The Canada Medical Record.*

TREATMENT OF SYPHILIS.

Sigmund asserts that the internal administration of mercury is fast losing ground. The chief methods to be employed are frictions and injections. We should still bestow attention upon internal medication since its application is useful in dif-

ferent spheres of life, but he advises small doses, given once or twice a day: Calomel 0.01—0.04, sublimate 0.01—0.02, proto-iodide 0.02—0.05, deutoioduret 0.01—0.03 ctg. Decoctions are valuable aids to treatment, especially in old skin and bone, and especially gummatous, conditions.

As an external application for children he recommends corrosive sublimate in ablutions and baths.

As an external application he thinks the gray ointment requires no special indorsement. It is well known.

Hypodermic injections are made chiefly with sublimate and calomel.

In children, pregnant women, or very sensitive patients, injections are contra-indicated, as well as in those suffering from convulsions, especially epilepsy. In the early stages, in the light of evidences of later stages, in pareses or paralyses, injections should be used before we think of frictions.

Calomel is more seldom used than the sublimate, because injections of the first more often produce abscesses. S. has used small quantities daily (15 to 20 ctg.), and has rarely seen abscesses, and the results have been equal to, if not much better than with sublimate.—[*Wiener Med. Wochenschr.*, 1882, No. 11.]—*St. Louis Clinical Record.*

SIMPLE METHOD FOR THE CURE OF OZŒNA.

Dr. Gottestein *(Gaz. Med. di Roma)* considers ozœna as a constant symptom of chronic coryza. There is no doubt that, after interference with the function of the glands, there is a diminution and alteration of the nasal secretion. Part of it, drying rapidly, adheres to the mucous membrane on which it forms crusts, and it is the decomposition of these which is the cause of the odour. It is, therefore, only necessary that a limited portion of the mucous membrane should undergo atrophy to give origin to an ozœna. In adopting this theory it is evident that there can be no question of radical cure, since it cannot be hoped that the secretion of an atrophied mucus membrane can ever become normally re-established. We must, therefore, be satisfied with that treatment of the symptoms which is the most simple and convenient for the patient. The author was led by chance to employ the following method, from which he has already in fifteen cases of ozœna seen the best results to follow in less than three months. Dr. Gottestein commences the treatment with a nasal douche, which, by freeing the cavity from its secretions, permits the recognition of the character of the mucous membrane and the extent of the lesion. This is followed by the introduction of a tampon of cotton, 3–5 centimetres long, which should remain in position for twenty-four hours. About an hour and a half after the introduction of the cotton, there is a little secretion from the nose. When the tampon is withdrawn, the secretion

is found to be fluid and without crust or odour. Twenty-four hours can be allowed to elapse between two applications of the tampon. When both sides of the nose are affected, the nose can be tamponed every twenty-four hours on the alternate sides. The tampons cause an artificial contraction of the cavities, and so increase the action of the column of air and facilitate the expulsion of the secretions, which are absorbed as rapidly as they are formed, and their desiccation is thereby prevented. (*L'Union Méd.* Nov. 27, 1881.) *The Practitioner.*

ETIOLOGY OF TUBERCULOSIS.

Koch has apparently succeeded at last not only in recognizing the tubercular virus, but in cultivating it artificially. To the bacteria which form the materies morbi he gives the name of tubercle-bacteria. They are distinguished from other bacteria by the blue color which they retain after staining in methylene blue along with caustic potash, and subsequent treatment with vesuvin. The tissues and all bacteria, except the tubercle bacteria, are rendered brown by the vesuvin; but it does not alter the color of the tubercle-bacteria. Tubercle-bacteria are rod-like, and therefore belong to the group of bacilli. They are very thin, and their length is from one-fourth to one-half the diameter of a red blood-corpuscle. They resemble lepra-bacilli, but the latter are thinner, more pointed and take up coloring matter when treated by Weigert's method, which the tubercle-bacilli do not. Tubercle-bacilli are found in great quantities wherever the tubercular process is commencing or progressing rapidly. They generally form thickly crowded, and often bundle-like groups, which frequently lie in the interior of cells. Numerous free bacilli are also to be found, and especially at the edge of caseous foci they occur in crowds not enclosed within cells. As one recedes from the most active focus the bacilli diminish in number. Where giant cells occur (*vide* Hamilton, *Practitioner*, July, 1880, p. 6) the tubercle-bacilli are chiefly found within them. Some giant cells are free from them, but the author considers that these are old cells in which the bacilli are either dead or have passed into the resting state. As Weiss, Friedlaender, and Laulamié have observed that giant cells grow round foreign bodies, such as vegetable fibres and strongylus ova, one may conclude from analogy that the tubercle-bacilli being enclosed by the cells have acted as foreign bodies, and have caused the cells to develop into giant cells. The author considers that the organisms noticed by Schüller, Klebs, and Aufrecht, were not tubercle-bacilli. From numerous observations he concludes that tubercle-bacilli, distinguished by the peculiar characters he has described, occur in all tubercular affections of men or animals. In order to show, however, that the tubercle-bacilli do not merely accompany,

but actually cause the tubercular process, the author cultivates them in ox- or sheep-serum sterilized by intermittent exposure to a temperature of 58° C. for an hour each day during six days, and finally coagulated by a temperature of 65° C. The bacilli are kept at a temperature of 37° to 38° C. They grow very slowly, so that their growth only becomes evident to the naked eye at the end of a week or ten days. In order to obtain them pure, a second crop must be cultivated by putting some of the first crop into fresh serum after ten or fourteen days. When the tubercle-bacilli thus cultivated were inoculated into a guinea pig with every necessary precaution, the result was always the same. On the day after inoculation, the slight wound on the belly near the inguinal glands was closed and remained unchanged till about the eighth day, when a tubercle formed which either enlarged without breaking, or, what was more generally the case, was converted into a dry, flat ulcer. In two weeks the inguinal glands on the inoculated side, and sometimes also the axillary glands, were swollen to the size of peas. The animals then became rapidly emaciated, and either died in four to six weeks or were killed in order to exclude any fallacy from the after development of tubercle spontaneously. Other experiments made by the author show that cultivated tubercle-bacilli either inoculated into the cellular tissue, or injected into the peritoneal cavity or anterior chamber of the eye, or directly into the circulation, produced tubercle without exception. Inoculation into the anterior chamber of the eye produced tubercular iritis (*vide Practitioner*, Aug., 1881, p. 87). The author regards the presence of tubercle-bacteria as the only means of deciding whether any condition is tuberculous or not. His observations show that, according to this test, miliary tubercle, caseous pneumonia, caseous bronchitis, intestinal and glandular tuberculosis, "Perslucht" in oxen, and spontaneous or inoculated tuberculosis in animals, are all identical. He has not come to any conclusions as yet regarding scrofulous and fungous affections of joints. The discovery of tubercle-bacilli in a pig and fowl renders it probable that tuberculosis is much commoner amongst domestic animals than is usually supposed. From experiments which the author made in order to discover whence the tubercle-bacilli come and how they get into the organism, he found that they only grow between 30° and 41° C., and therefore in moderate climates can only grow within the animal body, as there only can they have a continuous regular temperature of over 30° C. for at least two weeks. Most of the tubercle-bacilli are probably inhaled in the form of dust. Phthisical sputum contains them in large numbers, and they retain their virulence, when dried, for weeks. Phthisical sputa when dried and converted into dust may produce tuberculosis, and ought therefore to be carefully disinfected. They do not produce tuber-

cle in every case when they are inhaled, probably because, unlike the anthrax bacillus, they grow very slowly. Thus when introduced into a cut on the skin, as during the post-mortem examination of a phthisical patient, they have no effect, because they are expelled before they can get established; and the same is probably the case when they enter the lungs, unless a nidus is afforded by stagnating secretion, or mucous membrane which has lost its epithelium, etc. In order to prevent the spread of phthisis the sputa of patients should be carefully disinfected as well as the clothes, bed, etc., which they use. Another source of infection is tuberculosis amongst domestic animals, and the flesh and milk of animals suffering from it ought to be shunned. (*Separat-Abdr. aus der Berl. Klin. Wochenschr.* No. 15, 1882).—*The Practitioner.*

ON PERCUSSION OF THE SKULL IN THE DIAGNOSIS OF THE BRAIN.

By Dr. Alex. Robertson, Glasgow.

Although attention was directed by the writer in 1877 to the value of percussion of the skull in the localization of disease on the surface of the brain, and Dr. Ferrier (*Brain*, 1879) has also insisted on its importance, the subject may still be considered comparatively new to the profession. The paper first deals with objections against the practicability of transmitting the degree of force employed in tapping the skull with the finger to the surface of the brain. Duret's experimental researches on cerebral traumatism show that in blows on the head a "cône de dépression" is formed, which passes deeply in the line of the thrust to the base of the skull; the slight force of percussion will act in a similar way, though it may scarcely extend beyond the cortical substance. A somewhat analogous instance of the irritation of a morbid part into conscious sensibility is sometimes supplied by disease of the lungs, in percussion over a cavity or softened caseous matter near the surface of the lung. Clinical experience is one apparently conclusive on the question. Cases of Jacksonian epilepsy and monoplegias are referred to, when the symptoms pointed to the motor regions of the convolutions as the seat of the disease, and in which percussion of the skull gave very distinctly deep-seated pain in that part of the head, and *nowhere else*. The two kinds of symptoms—the disturbance of function and the developed pain—lend each other mutual support in the localization of the disease. When the convulsive movements are general, the pain brought out by percussion at some other part of the head, probably indicates the centre from which the morbid action spreads to the motor convolutions. In some cases corroboration of the diagnosis is

derived from the diagnosis of former blows, and also from the beneficial effect of treatment over the painful region; another objection is, that the brain substance is wholly insensitive, and the membranes are only slightly sensitive. In reply, it is pointed out that the dura mater and the pia mater, like other fibrous membranes, when in a state of disease, and subject to tension, may give rise to severe pain. The pain in the cases founded on is not induced by mere rubbing or gentle pressure, but by *percussion*. It is therefore inferred that the disease is not in the bone, unless it be in the inner table of the skull; and if it is situated in this part, it is of great importance to elicit the fact, as morbid action there usually involves the outer, and often the inner, membrane and brain itself. However, disease of the bone in adults in most cases is syphilitic, and the pain, as a rule, is such as to stand in no need of artificial development to manifest its existence. Then follow brief notes of six cases under the writer's care. In some of these great benefit was derived from repeated counter-irritation over the seat of developed pain. It is stated that several cases support the prevailing views respecting the localization of motor function in the cortical substance. The mode of practising percussion of the skull is described. The physician should be careful to make the taps of the finger as nearly as possible of equal force, except in the temporal region, where they should be lighter. It is well to percuss one's own head previously, to ascertain the character of the tap which can be borne without discomfort. It is advised to avoid, either by remark or otherwise, directing the patients' attention to any particular part of the head, particularly if they be of an impressionable or hysterical disposition. It is not claimed that this means of diagnosis will be of very wide application. It probably will not be of service if the morbid action be diffused, as in ordinary cases of insanity. It is chiefly of use when the disease is limited in extent, and particularly if it is attended by gross products, such as inflammatory lymph, producing local tension or tumors of the surface, or in the membranes. In injuries of the head, it may occasionally be of service. Thus, in a somewhat doubtful case of fracture of the skull the writer has seen it assist in marking out the line of the fracture. In disease of the inner table of the skull, when the pain of the head is wide-spread, it may help to localize the lesion. Wherever, therefore, there is the least ground, judging from the general symptoms, for suspecting that disease may exist superficially within the skull, percussion of the head should not be omitted; it may yield most valuable information on which important local treatment may be based.—*Abstr. Internat. Med. Congress*, 1881, p. 85.—*Journal of Nervous and Mental Disease.*

THE REDUCTION OF TEMPERATURE BY COLD BATHING ON KIBBEE'S COT.

From Transactions of the Obstetrical Society of New York. Meeting held Oct. 4, 1881.

Dr. Lusk, with reference to the use of Kibbee's cot in private practice, narrated the following case:

A patient in the Maternity Hospital developed high fever, and he directed that she be removed to a special ward. Her temperature rose to 107° F., and he told the house physician to place the patient upon a Kibbee's cot, and see if the temperature could be controlled in that manner. The chances of keeping the patient alive seemed to be very slight. The temperature, however, was quite readily reduced, and, after using the cot for a week, erysipelas appeared upon the genitals, and extended over the body as high as the umbilicus. This complication was so serious that it seemed as though all the good that had been done was now undone, but, by the persistent use of the cot, the temperature was controlled, and the patient ultimately recovered entirely. Of course, other treatment was used, and large quantities of stimulants were administered, but the recovery seemed to be due largely to the happy success in lowering the temperature by the aid of the cot. The water used was of a temperature between 80° to 90° F., and the patient's temperature was steadily kept between 100° and 102° F. The unexpected result in that case had encouraged him to try to use the cot hereafter in private practice.

Dr. Hunter had employed the Kibbee cot in private practice, and, in one case, where there was great prejudice against the use of water in this manner, the patient was placed upon the cot, and tepid water, 75° to 80° F., was used first, and gradually cooled to 60° F. In that way the prejudice of the friends was overcome, and he was able to keep the patient's temperature down to 99° F., without difficulty. He was sure that no amount of sponging could have reduced the temperature in the case referred to, and, in general, he had found it to be the most effectual means that could be employed.

Dr. Ward thought there would be no difficulty in introducing the cot into private practice, if it was so arranged, as it could be, that the patient was thoroughly douched, and, at the same time, the parts of the body desired to be kept dry remained untouched by the water.—*American Journal of Obstetrics,* Feb., 1882.

LISTERINE.

We find in listerine one of the most sightly, pleasant, convenient and valuable remedies we have. In *ulcerative stomatitis* it is superior to anything we have used. R. listerine, half ounce; syr. simple, three and a half ounces. M. S. One teaspoonful every two hours. This, with a weak solution of cupri sulphas, as a local application, will show favorable re-

sults immediately. This is for children from two to five years old. Adults may have the same treatment, but the doses should be larger. In a short time after commencing the use of the listerine, all the fetid odor coming from the diseased mouth disappears, and the ulcers show a healthy surface—put on the appearance of convalesence.

Many patients come to us complaining of "bad breath." Young ladies, especially, detest bad breath. Sometimes bad teeth occasion bad breath. But no matter about the source, listerine will correct the difficulty. If from bad teeth, instruct the patient to have them cleaned, and then wash the mouth with listerine twice a day, or, better, immediatelely after each meal. This will insure a sweet mouth. If bad breath comes from sour gases in the stomach, or effete material through the lungs, then listerine, taken in half or teaspoonful doses four times a day will soon correct the trouble. These are mere hints regarding the value and convenience of listerine. We shall refer to it time and again, as cases come to our notice requiring its use.—*American Medical Journal*, St. Louis.

IODIDE OF POTASSIUM IN FRONTAL HEADACHE.

Dr. Haley, states in the *Australian Medical Journal* for August that for some years past he has found minimum doses of iodide of potassium of great service in frontal headache. A heavy dull headache situated over the brow, and accompanied by languor, chilliness, and a feeling of general discomfort, with distaste for food, which sometimes approaches to nausea, can be completely removed by a two-grain dose dissolved in half wineglass of water, and this quietly sipped, the whole quantity being taken in about ten minutes. In many cases the effect of these small doses has been simply wonderful. A person who a quarter of an hour before was feeling most miserable, and refused all food, wishing only for quietness, would now take a good meal and resume his wonted cheerfulness. The rapidity with which the iodide acts in these cases constitutes its great advantage.—*The Canada Medical Record.*

Editorial Department.

We express thanks to Dr. Talbott Jones, of St. Paul, for newspapers giving a synopsis of the proceedings of the American Medical Association.

The meeting appears to have been eminently successful in both a scientific and social point of view. The results of the meeting are gratifying.

Of course, one of the points of greatest interest was, the action which should be taken respecting the delegates from the State Medical Society of New York. The Judiciary Council unanimously decided that the State Medical Society of New York was not entitled to representation in the American Medical Association.

We cannot see what other decision could be justly taken. We do not know with what form of arguments the State Society pleaded its cause before the Judiciary Council, or if indeed any efforts were made to gain admission as delegates beyond the presentation of their credentials. The arguments usually advanced in their defence are, first: that the State Medical Society is bound to hold in professional recognition all persons whom the State ordinances declare legally qualified practitioners of medicine—perhaps in any of its branches. This argument certainly holds good in so far as the legal relations of all legally qualified medical persons are concerned. All are equally liable to the law in matters of malpractice, libel, slander, etc. But the legal status of a physician is a very different matter from his professional status, and there is nothing in any State ordinances which prescribes rules of professional intercourse, or which can in any manner abridge a physician's conscientious right to decline consultations with those whose theories and modes of practice are absurdly antagonistic to his own and to common sense as well.

Another argument which has been used is, that the code of ethics of the State Society of New York ante-dated that of the American Medical Association and still remained in force. Surely the mere act of joining and supporting the American Medical Association was virtually a repeal of all clauses of the State code in opposition to any in the national code. Any different interpretation gives a coloring of unfairness, which we know is not chargable.

A third argument is, that this action on the part of the Medical Society of New York is a liberal movement, which is to bring all legally constituted physicians to the same platforms of doctrine and practice.

In religion, a millennium of peace and universal piety is promised, and may be devoutly prayed for, and perhaps practically expedited by the union of all religious denominations upon the earth. But if one of these denominations holds to a doctrine of Similia Similibus Curantur, and teaches that a little more sin is conducive to piety and morality, we take it that no millennium morning will dawn until the said recusant church renounces its doctrines.

Reviews and Book-Notices.

The Incidental Effects of Drugs: a Pharmacological and Clinical Handbook. By Dr. L. Lewin, Assistant at the Pharmacological Institute of the University of Berlin. Translated by W. T. Alexander, M. D. 8vo. Pp. 239. New York: William Wood & Co., 1882. [Sold by Armand Hawkins, 196½ Canal street. Price in muslin, $2.00.]

The title of this book fails to express its real character, for it treats not merely of the usual incidental effects of remedies, apart from their intended operation, but of their accidental, abnormal and unexpected effects. These latter have been gathered by the author from the current medical literature of recent years, as he has found the systematic text-books defective on this point.

The author expresses the hope that his work will "not only satisfy practical requirements, but also stimulate to further observations in this direction." There is certainly room for further observations than he has here recorded, as we are convinced by a rather cursory examination of his text. Some of his omissions are here presented in illustration:

No allusion is made to the occasional action of quinine upon the uterus specially, as exhibited in uterine contractions sometimes threatening abortion or premature labor, and in stimulating the menstrual function.

Nausea and abdominal colic, as somewhat rare effects of strychnia, are not recognized.

The habitual sedative effect of ergot on the heart, and the production of gangrene by its prolonged use, are not mentioned. To these we might add a personal observation of a lasting sense of sweetness in the organs of taste, as an effect of large hypodermic doses.

No allusion is made to the varying degree of susceptibility of different individuals to the action of mercurials on the salivary glands, nor to the fact that a person once ptyalized is more susceptible than before.

Nothing is said of fatty degeneration as an effect of phosphorus. The author offers the remarkable suggestion that the exhibition of phosphorus in pill or oily solution aggravates its irritant effect upon the stomach by prolonged continuance before absorption!

His classification of remedies is quite peculiar in some instances. Thus creasote, oil of turpentine, copaiva, cubebs, lime-water and sodium nitrate are placed among the tonics; and carbolic acid among the acids, though chemically an alcohol, and therapeutically to be ranked with creasote.

On the whole, while the object and plan of this work may be commendable, we can not speak highly of the author's execution of his task. A greatly improved edition is a desideratum. S. S. H.

The Illustrated Quarterly of Medicine and Surgery. Edited by George Henry Fox, Clin. Professor Diseases of the Skin, College of Physicians and Surgeons, New York; and Frederic R. Sturgis, Professor of Venereal Diseases, Medical Department University of New York; with the co-operation of Professors Willard Parker, A. C. Post, W. H. Van Buren, Jas. R. Wood, J. L. Little, T. G. Thomas, A. L. Loomis, F. Delafield, D. B. St. J. Roosa, C. R. Agnew and Austin Flint. 4to. New York: E. B. Treat, 1882. [Subscription price, $8 per year.]

The object of this journal is to present illustrated clinical reports of cases of special interest, and, to secure excellence of material, accepted articles are paid for. Each number consists of 4 quarto plates (lithographic or artotype), with 24 or more printed pages descriptive of the cases illustrated. Further il-

lustrations are given by wood-cuts, as required. The same publishers have recently brought out a series of illustrations of skin diseases, followed by another on cutaneous syphilis, each complete in 12 monthly numbers. The design of this publication is different, being of a permanent character—in other words, an illustrated clinical record of select cases.

The January and April numbers are now before us. The contents of the former are: Restoration of Upper Lip (5 illustrations), by Alfred C. Post, M. D. LL. D.; Fibrous Tumor of the Face (3 illustrations), by Willard Parker, M. D.; Laparotomy for Removal of Menstrual Blood, etc. (5 illustrations), by T. G. Thomas, M. D.; Separation of the Epiphyses of the Femur (2 illustrations), by James L. Little, M. D.; Dislocation of the Columnar Cartilage of the Nose (1 illustration), by F. H. Bosworth M. D.; Facial Paralysis in Connection with Aural Disease (4 illustrations), by Samuel Sexton, M. D.; A Rare Form of Corneal Opacity (1 illustration), by T. R. Pooley, M. D.

The subjects treated in part second are: Ovarian Pregnancy (1 illustration), by Isaac E Taylor, M. D.; Facial Atrophy (1 illustration), by E. C. Seguin, M. D.; Plastic Operations for Loss of Nose, Lower Eyelids, etc. (9 illustrations), by Thos. T. Sabine, M. D.; Dupuytren's Contraction of the Fingers (2 illustrations) by Robert Abbe, M. D.; The Pathological Anatomy of a case of Spinal Caries with Paraplegia (2 illustrations), by V. P. Gibney, M. D.; The History of three Cases of Hip Disease in the Third Stage (9 illustrations), by A. B. Judson, M. D.; Skin-grafting, with Report of Case (2 illustrations), by G. A. Van Wagener, M. D.

The most remarkable article is upon a case of plastic operation for loss of nose. A new nose was constructed of the middle finger of the left hand, the nail of which was removed. After raising flaps of skin on the finger and the face, proper adjustment was made, and the hand was kept fastened to the face until union had taken place. The finger was then amputated, and the stump fashioned to represent the lower part of the nose. The operation was tolerably successful in an æsthetic sense, though, of course, there was no advantage to the

olfactory sense; and Oscar Wilde himself could not have done better in face of such difficulties.

If we may judge of this enterprise by the beginning, and by the propensity of mankind (even those who have enjoyed the rights, lights and benefits of a medical education) to relate and listen to the marvelous, the publication can hardly fail to become the medium for reporting extraordinary surgical operations (*when successful*); and an appropriate title would be *The Romance of Surgery, Illustrated, in Quarterly Parts.*

S. S. H.

Books and Pamphlets Received.

Transactions of the American Medical Association.. Vol. 32, 1881.

Epidemic Convulsions. By David W. Yandell, M. D., Professor of Surgery, University of Louisville, Ky. Reprint from the *American Practitioner* for December, 1881.

Third Annual Rèport of the Board of Health of the Taxing District of Shelby County (City of Memphis), for the year 1881.

Consumption: Is it a Contagious Disease? What can be done to prevent its ravages? A paper. By Bela Cogshall, M. D., of Flint, Michigan. Reprint from the Annual Report of the Michigan State Board of Health for the year 1881.

On Ovariotomy. By Thomas Keith, Esq., M. D. Reprint from the *American Practitioner* for November, 1881.

Anœsthesia and Non-Anœsthesia. Extraction of Cataract, with some Practical Suggestions regarding the Performance of this Operation, and Comparative Statistics of two hundred cases. By Hasket Derby, M. D., Surgeon to the Massachusetts Charitable Eye and Ear Infirmary, etc.

Removal of Naso-Pharyngeal Polypus by Temporary Depres

sion of both Upper Jaws. By L. McLane Tiffany, M. D., Professor of Operative Surgery, University of Maryland.

A Discourse on the Life and Character of Dr. Richard O. Cowling. By David W. Yandell, M. D., Professor of Surgery, University of Louisville, Ky.

Inebriety. A Study upon Alcohol in its Relations to Mind and Conduct. By T. L. Wright, M. D., Bellefontaine, Ohio. Reprint from the *Alienist and Neurologist*, April, 1882.

The Aneurism of the Brachial Artery at its Upper Third, and by Compression maintained for ten hours by means of a Conical Pad. By L. Emmett Holt, A. M., M. D., of New York. Extract from the *American Journal of the Medical Sciences*, for April, 1882.

A Contribution to the Study of the Bacterial Organisms commonly found upon Exposed Mucous Surfaces and in the Alimentary Canal of Healthy Individuals. By George M. Sternberg, M. D., Surgeon U. S. A.

Civilization, in its Relation to the Decay of the Teeth. An Essay read before the International Medical Congress, August, 1881. By Norman W. Kingsley, M. D., D. D. S., President of the Board of Censors of the State of New York, etc., etc.

Laceration of the Perinæum—Abortion and its Lessons. By O. E. Herrick M. D., Grand Rapids, Mich. Reprint from the *Obstetric Gazette.*

Catalogue of Medical, Dental, Pharmaceutical and Scientific Publications. Published by P. Blakiston, Son & Co, Philadelphia, Pa.

Thirty Sixth Annual Announcement of Starling Medical College, Columbus, Ohio.

ERRATA.

On page 25, 4th paragraph, 4th line of Article on Inundations of New Orleans, "the inundation of 1849 is erroneously assigned to 1844;" 1849 should be 1846.

METEOROLOGICAL SUMMARY—MAY.
STATION—NEW ORLEANS.

DATE	Daily Mean Barometer.	Daily Mean Temperature.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	GENERAL ITEMS.
1	30.181	67.3	49.0	N. E.	. . .	Mean Barometer, ———.
2	30.211	72 0	58.7	East.	.....	Highest Barometer, 30.249, 2d.
3	30.147	73.8	67.7	S. E.	.....	Lowest Barometer, 29.768, 31st.
4	30.014	75.7	68.7	South	....	Monthly Range of Barometer, 0.481.
5	29.897	77.5	73.7	South	... .	Mean Temperature, ——.
6	29.845	75.8	80.7	S. E.	.08	Highest Temperature, 88.3, 30th.
7	29.787	78.9	78.7	S. E.	.11	Lowest Temperature, 58.5, 15th.
8	29.929	80.0	82.7	South	.16	Monthly range, ——
9	29.911	80.7	78.3	South	.....	Greatest daily range of Temperature,
10	29.863	76.7	89.0	South	1.06	17.5, 24th.
11	29.810	76.2	64.0	West.	.56	Least daily range of Temperature,
12	29.884	74.8	50 0	North	.....	5.0, 21st.
13	29.973	68.2	49.3	N. W.	.....	Mean of Maximum Temperature, 80.8.
14	29.978	67.2	52.7	West.	.....	Mean of Minimum Temperature, 68.3.
15	30.029	67.9	59.0	N. E.	.....	Mean daily range of Temperature, 12.5.
16	30.114	72.2	53.0	N. E.	.....	Prevailing Direction of Wind, E.
17	30.182	69.5	49.7	N. E	.....	Total movement of wind, 6256 miles.
18	30.215	71.2	51.3	East.	.....	Highest Velocity of Wind and Direc-
19	30.138	73 5	62.0	East.	.....	tion 38 S. E.
20	30.100	74.0	69.7	S. E.	.15	Number of Clear Days, 8.
21	29.953	72.8	88.0	South	2.17	Number of fair days, 17.
22	30 057	70.5	77.0	North	.23	No. of cloudy days on which rain fell, 6
23	30.119	68.9	69.3	North	.....	Total No. of days on which rain fell, 11
24	30.025	72.6	69.0	East.	.	
25	29.947	76.3	78.0	East.	.....	COMPARATIVE TEMPERATURE.
26	29.900	77.2	73.3	East.	....	1872..... .... | 1877..... 73.5
27	29.845	77.8	78.7	S. E.	.03	1873..... 73. 7 | 1878..... 75.5
28	29.861	80.2	76.0	S. W.	.05	1874..... 75.66 | 1879..... 76.5
29	29.914	80.7	72.0	West.	.....	1875..... 76. 2 | 1880 ..... 76.6
30	29.917	80.9	70.0	South	.....	1876..... 74.76 | 1881..... 77.0
31	29.801	76.4	86.3	South	2.22	COMPARATIVE PRECIPITATIONS.
						(Inches and Hundredths.)
Sums.	.....	....	.....	.....	6.83	1872..... .... | 1877..... 1.48
Means	29.985	74.4	68.6	South	.....	1873..... 18.68 | 1878..... 8.11
						1874..... 0.22 | 1879..... 4.63
						1875..... 2.53 | 1880..... 6.58
						1876..... 7.10 | 1881..... 3.20

L. DUNNE, *Serg't, Sig. Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM MAY 20TH, 1882, to JUNE 10TH, 1882, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
May 20	0	7	18	23	3	137
May 27	0	11	16	10	4	146
June 3	0	12	13	16	2	134
June 10	0	12	11	25	2	133
Total.....	0	42	58	74	11	550

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

AUGUST, 1882.

ORIGINAL COMMUNICATIONS.

Review of the Surgical Treatment of President Garfield.

By RICHARD H. DAY, M. D., of Baton Rouge, La.

I do not know of the history of any case, medical or surgical, written or unwritten, that has attracted the same interest and attention as that of the lamented President James A. Garfield. The popularity of the patient; the cruelty and the deliberation of his assassination; the great length of time he suffered and struggled with his injury, and the high standing of his attending surgeons, all combined to make it one of the most painfully thrilling and interesting cases that ever occurred in medical or surgical practice. Naturally enough, the condition of the patient and all the symptoms, issued in daily bulletins and telegraphed to every part of the United States and the whole civilized world, as well as everything done by his distinguished surgeons, were carefully and critically noted and commented upon by the laity and the profession. Physicians of learning and thought everywhere were drawn by the exactions of their profession to give this case their most intense thought; some of whom, I am sorry to say, were heedless enough, with only meagre information, hastily and publicly to criticise and condemn through the secular press the treatment adopted by his surgeons. This was in bad taste and

highly unprofessional; yet it cannot be denied that, even from the start, there was a difference of opinion among the physicians who first saw the case, as to the line of treatment proper to be adopted; and this difference grew and extended as the case lingered on, till almost the entire medical profession were involved in the issue.

When at length the case terminated fatally, and a *post-mortem* examination was decided upon, it was hoped that its revealments would be so clear as to settle and harmonize all differences of opinion among medical men. Such, however, was not the fact. This is shown by the numerous publications in the medical journals and literary reviews of the day bearing upon this subject. I have read these articles with care and interest, and regret to say they do not cover the real points at issue, and are by no means conclusive according to my honest judgment. I appreciate the extreme delicacy of the subject, and fully recognize the courtesy ever due to brother physicians; yet, at the same time, every physician owes a duty to truth, and to exact precision in the application of the principles of medical and surgical science; and I conceive that all medical practice and every surgical procedure is the common property of the profession, and open to its just and courteous criticisms.

Indeed Dr. Bliss, the able and indefatigable surgeon of the late President, in his final report of this case, courts this enquiry; and we would be unjust and untrue to him, to ourselves and to our noble science, if we did not courteously, but at the same time rigidly and truthfully, criticise all that was done as well as all that was not done. Hence, I propose to review this noted case from a purely surgical stand-point; and I shall try to do so carefully and impartially, and I trust only with a single purpose to develop the truth and to uphold the standard of surgical excellence and accuracy.

I take great pleasure in according to Dr. Bliss and his distinguished associates the heartiest meed of praise, for their constant watchfulness during the President's protracted illness, and the *faultless* and *absolute perfection* of their medical and dietetic treatment of his case. His surgical treatment,

however, I humbly conceive, was faulty and erroneous; perhaps, under the circumstances, unavoidably so; for we can hardly believe it possible that such skilled and eminent surgeons could fail, properly to understand the nature and magnitude of the injury in all its bearings, and the principle of surgical treatment applicable thereto, yet such appears to have been the fact.

Dr. Bliss ("Medical Record," October 8th, 1881) says, "I desire to say, in a brief review of the leading facts as to the general conduct of the case, that it has been apparent to the medical reader, that my prognosis was favorable, and notwithstanding the mutations, I augured a successful termination. It is but justice to myself to state, that my prognosis was based on a lesion of *minor* importance. Had our diagnosis been correct, modern surgery should have conducted the case to a successful termination. I was not always able, during the progress of the case, to *account* for many of the more *profound symptoms*, and yet *could not succeed* in learning of any more *extensive* or *complicated lesions* than first suspected. I desire to make the enquiry, whether more extensive explorations could have been safely made. I would ask, if any known instrument or means of exploration has been presented to the profession capable of tracing, before the death of said patient, the course of this bullet? also whether the conditions could have been improved or mitigated, or his life preserved longer, by any other line of treatment? Whether in view of the facts, modern conservative surgery could offer anything more, for the comfort or recovery of the illustrious patient?"

I have made this long quotation from Dr. Bliss, not merely to sustain my assertion, that the nature and magnitude of the President's injury was not made out by his surgeons, and the proper surgical treatment adopted, but to give Dr. Bliss full and cordial credit, for his candor and frankness, particularly since his inquiries bring the more salient points in this case so prominently to our consideration. I would state that I do not consider it essential in our present inquiry to know "if any instrument or means of exploration has ever been presented to the profession capable of tracing, before the death of

the President, the course of the bullet ;" (although Dr. Turnipseed, of Columbia, South Carolina, claims that honor) since that information really was not the *essential object*, or of *primary importance.*

Not the *course* of the *bullet* and its place of *lodgement* were the chief points of consideration; but to ascertain *definitely* what mischief, and its extent, the missile had inflicted in its passage. How was that to be done? Not by bougies, probes and catheters, flexible, vertebrated or otherwise. They failed in that instance most signally, as they have always done, whenever a tortuous or obstructed track has been encountered. Here was the first faulty surgical procedure; not only *faulty*, but absolutely *improper*, and contrary to the plain and uniform teachings of good surgery for nearly a hundred years past.

Dr. Bliss says, "I first used a Nélaton probe, which I passed in the direction indicated, to the depth of 3½ inches from the surface of the body, to what *appeared* to be a *cavity*, and I was unable to detect any foreign substance *beyond* the rib to indicate the *presence* of *fragments* of *bone*, or the missile. In attempting to withdraw the probe, it became *entangled* between the *fractured fragments* and the end of the rib, and could not be liberated until pressure was made upon the sternal end of the rib, so as slightly to elevate its fractured extremity. I then passed the little finger of my left hand to its full extent into the wound, which developed the *character* and *extent* of the fracture of the rib, and was only able to reach a point on a line with the inner surface of the rib, when it came in contact with what *appeared* to be a *lacerated* tissue or comparatively firm *coagula*, *probably* the *latter*."

I certainly have no desire to be captious in my analysis of Dr. Bliss' narrative, but there is a vagueness and ambiguity in this part of it, that evinces a confusion of ideas, by no means flattering to his surgical knowledge and acumen. He says, "In withdrawing the Nélaton probe, it became *entangled* between the *fractured fragments* of the broken rib," and that his little finger "passed to its full extent, developed the *character* and *extent* of the fracture of the rib," and reached

"what *appeared* to be a *cavity*," and further discovered "what *appeared* to be a *lacerated tissue* or *comparatively firm coagula, probably the latter.*" This implies doubt in his mind, and the history of the case shows, that the *condition* of the wound and "the *character* and *extent* of the *fracture* of the *rib*" were not recognized nor appreciated at the time; for it was only after some twenty days had elapsed, and suppuration had taken place, developing the fact that it was known that *fractured fragments* of the broken rib remained in the tissues unremoved. Besides, he adds, "After withdrawing my finger, I made an *exploration* with a *long flexible silver probe*, which I suitably curved before entering, and gently passed it *downward* and *forward*, and *downward* and *backward* in *several directions*, with a view of indicating the course of the ball; and, meeting with resistance from the *soft parts*, I desisted and excluded the probability of deflection."

Need I say to intelligent surgeons, that this probing, most evidently beyond the fractured rib, with a *long flexible silver probe*, "*downward* and *forward*, and *downward* and *backwards* in *several directions*," was radically *wrong* and *dangerous*, and was unquestionably the commencement and cause of that extensive and exhausting pus-channel, which developed into pyæmia, by making lacerations and artificial openings into the loose cellular and connective tissue of those parts?

Dr. Chisholm says, "When the wounds are quite recent, before the tissues become engorged, there is a temporary absence of pain and a relaxation of the injured parts, which favor an examination. The wound should now be examined throughout its entire extent, to determine the presence of foreign bodies, whether they be balls, wadding, portions of clothing, detached spiculas of bone, etc. For this purpose the *finger* is the *proper probe*, and should be *used* on *all occasions*, with rare exceptions. It is an *intelligent instrument*, and appreciates what it feels; it will not only discover the character of foreign bodies complicating the canal, but will *avoid increasing* the *dangers* by making *new lesions* in the depth of the wound. The *silver probe* is a *dangerous* and *deceptive* instrument, and should be *discarded* from the battle-field."

Bryant says, "When great collapse or shock exists, some gentle stimulant may be given. The true condition of the parts is to be made out at once, and the plan of treatment laid down. By far the *best instrument* to explore a wound is the *finger*, and for that purpose the external opening through the fascia may *always be enlarged.*"

Says the celebrated John Hunter, "*Probes* should *seldom* or *never* be *used*; the *finger* is by *far* the *best instrument*, if the wound will admit of it—no *artificial instrument* can give the same amount of information, or afford information so precise with regard to the lodgment of foreign bodies and their nature, as the surgeon's *finger* can give. The surgeon should not withdraw the finger, until the course the projectile has taken, the *injury* it has done, the complications of the wound, such as the presence of foreign bodies, and in such a case their kind and situation, have been decided by him; the exploration will then be completed by one operation, and a second insertion of the finger for that purpose, which is always irritating to a patient, will be avoided. The knowledge gained by this procedure," adds Hunter, "will be definite and of special utility in determining the proceedings to be afterwards adopted."

Such are the plain and direct teachings of enlightened and intelligent surgery, and its correctness is fully sustained by the experience and practice of the most eminent surgeons the world over. And yet Dr. Bliss, in the case of President Garfield, according to his own statements, ignored these plain and sound principles of surgical practice, and admits that, in withdrawing the Nélaton probe, the instrument became *entangled* in the *fractured fragments* of the broken rib. Then, instead of using his bistoury and enlarging the wound, so that he could freely introduce his index finger, and discover and remove every *fragment* of *detached* bone, and thus remove from the case this most potent cause of irritation, inflammation and suppuration, after using his *little finger*, which amounted to just nothing at all, he takes a *long flexible silver probe*, introduces it into the wound, and pushes it in *several directions*, downward and *for-*

ward and *downward* and *backward*, in a blind and fruitless search after the track of the bullet.

We admit that there may be certain cases of bullet wounds, with long or tortuous tracks, not entering vital organs, however, or the important cavities of the body, where the use of the long flexible silver or vertebrated probe may be justifiable or demanded; here, however, it was most clearly *inadmissible*, and I believe very greatly complicated the case, by making false passages in the adjacent cellular tissues. If the *broken fragments* of rib had been promptly removed, with all foreign matter in the track, which was so clearly indicated, and the probes not introduced beyond the rib, the presumption is more than reasonable, that there would have been no great inflammation in the wound, and consequently no formation of pus in sacs around the wound, to gravitate and work its way beneath the muscles and facia, deep into the right iliac region. And this view is strengthened, yea, confirmed, by the fact that, as soon as the broken fragments of rib and foreign matters were removed, though more than three weeks had elapsed, the external wound healed promptly.

The track of the ball need not have given rise to much, if any, suppuration at all, if the external wound had been kept free and the track unobstructed by foreign bodies to the flow of the blood and serum, necessarily discharging for a few days, from the lacerated tissues and small blood vessels. We all know the natural tendency of such wounds to heal readily, when freed of foreign irritants; and that such would have been the result in the President's case, we may readily infer, not only from his sound and vigorous constitution, but from the fact, revealed by the *post-mortem* examination, that nature had made noble efforts at reparation, in the complete union and healing of both fractured ribs, notwithstanding the *broken fragments* of the 11th rib were permitted to irritate and fester in the wound for over three weeks, before they were discharged or removed.

The autopsy further discloses the fact, that the " track of the bullet, between the fractured 11th rib and point where it entered the cartilage and the 1st lumbar vertebra, was con-

siderably dilated," most evidently owing to the obstruction offered by the *broken fragments* of the 11th rib, which had not been removed, to the free exit of the oozings from the wounded tissues in the track of the bullet; while from this same well-defined point of local trouble, the broken 11th rib and its *detached fragments*, the pus had burrowed downward, following the way which had been "blazed out" by the *long flexible silver* probe, through the adipose and cellular tissue, behind the right kidney, and thence had found its way between the peritoneum and the right iliac fascia, making a descending channel which extended almost to the groin.

The *post-mortem* report says: "This long descending channel, now *clearly seen* to have been *caused* by the *burrowing* of *pus from* the *wound*, was supposed, during life, to have been the track of the bullet." That the *fractured fragments* of the 11th rib, lying in the track unremoved, were the *cause* and *origin* of this pus and pus-channel, and not the bullet track, cannot be doubted for a moment by any one capable of comprehending the relation of cause and effect; and is further made clear from Dr. Bliss' candid report of the case. He says: "On the evening of July 4th, the pain, hyperæsthesia and vomiting had nearly disappeared.....The case progressed with slight fluctuations up to July 23d, when a rigor occurred at 7 P. M., followed by a pulse 124, respiration 26; temperature 104 7-10. Two days previous to this, a pus-sac was observed in (beneath) the common integuments, extending down (from the 11th rib) below the 12th rib, toward the erector spinæ muscle, and underneath the latissimus dorsi, and was carefully evacuated by *gentle pressure* into the *original opening*, on the occasion of each dressing." Now this ready evacuation of pus from the newly discovered pus-sac, by gentle pressure, into the original opening, shows most clearly its direct connection with and its dependence upon the retained *fractured fragments* of the broken rib, as the source of the trouble.

The Dr. proceeds: "Not being satisfied that this superficial and limited collection of pus, which was so readily evacuated, was the principal cause of the aggravation of the symptoms present, a free incision was made into the pus-sac (on the 23rd

of July, 21 days after the injury), which afforded a more direct and dependent channel to the fractured rib, from which a *small fragment* of *bone* was *removed.* Pressure made backward and forward, upon the abdominal wall, between the umbilicus and the anterior spine, gave exit to a flow of peculiarly white and firm pus. I remarked at the time to the council, that the appearance of this pus gave assurance that it had never been exposed to the air, and must have come from a deep-seated source." This was even so; and its exit, at the *original wound*, upon pressure, no less clearly designated its origin and source.

The Dr. continues: "After this operation (of July 23rd), the improvement was not as prompt as we had reason to expect, and on the 26th July the opening between the fractured ends of the 11th rib was enlarged (which ought to have been done at the start) and a small *detached* portion was removed; this *facilitated* the *discharge of pus;* as a result a more uniform condition of the symptoms was maintained, until about August 6th, when slight febrile exacerbations were observed, etc. The necessity of a further observation was more plainly developed by passing a flexible catheter through the opening previously made, which readily coursed towards the crest of the ilium, a distance of about seven inches (showing conclusively a continuous open pus-track from the fractured 11th rib into this deep pus-socket).

The Doctor further adds: "The indications for making a point of exit in the dependent portion of this pus-sac were urgent, and on August 8th the operation was performed by *extending* the *incision previously* made, downward and forward through the skin, subcutaneous fascia, external and internal oblique muscles, to a sinus or pus-channel. The exposed muscle contained a considerable number of *minute spiculæ* of bone (evidently floated there by the gravitating pus from the fractured rib); upon carrying a long curved director through the opening between the fractured rib downward to the point of incision, there was a deeper channel which had not been exposed by the operation thus far, and the incision was carried through the transversalis muscle and transversalis fascia, opening into the deeper track and exposing the end of the director." Still the

bottom was not reached, as a catheter was then introduced to the depth of 3½ inches further, reaching near the anterior superior spinous process of the ilium.

May I not pause here, and ask any surgeon of experience, if this was not an extremely serious operation to inflict upon a patient, reduced almost to the verge of the grave by five weeks of suppurative and septicæmic fever? Yea, was it not *absolutely unnecessary* and *hazardous?*

I admit the indications were *urgent* and *pressing*, that these deep-seated pus-channels should be opened, to give exit to the deep-seated pus; but in their *most* dependent position; and this could have been done with a bistoury, cutting down upon the point of the probe or director, making an opening only *sufficiently large* for drainage and the free discharge of pus, leaving the intervening track between the dependent opening and the ends of the fractured rib to heal as soon as in a condition to do so.

I confess that I do not know of any principle of sound surgery, under the conditions then present, requiring or justifying such an extensive operation as was performed on President Garfield on the 8th of August, 1881. The making of an incised wound seven inches long and several inches deep, going through the skin, cellular tissue, the different fasciæ, and the layers of three distinct muscles, reaching even to the interior of the body, would be a severe and serious tax upon the constitution of any man in ordinary good health; how much severer, then, upon one emaciated by long suffering, protracted suppuration and blood poisoning?

Dr. Bliss desires to know "whether the conditions could have been improved or mitigated, or his life preserved longer by any other line of treatment; whether, in view of the facts, modern conservative surgery could offer anything more for the comfort or recovery of his illustrious patient. I answer, I hope modestly, but emphatically, yes. Any time within the first forty-eight hours of his injury, the sooner the better, the external wound leading down to the fractured 11th rib should have been sufficiently enlarged to admit the index finger freely; a thorough exploration should have been made with the *finger*,

and every *fragment* and *minute spicula* of bone and all *foreign substance* most carefully removed and, if the ends of the fractured rib required, smoothed off, to prevent irritation; the wound covered with a tolerably thick wet compress, impregnated with carbolized oil, and a roller applied around the chest, to prevent motion of the fractured rib, and the patient placed upon his right side in such a manner as to secure free drainage.

This initial and decisive surgical procedure, with the faultless medical and dietetic treatment which he received, would have spared him many hours of suffering; have prevented the formation of pus-sacs and those long pus-tracks that ultimately led to pyæmia; have spared him those severe operations he subsequently underwent, and perhaps have resulted in a prolongation of life or restoration to health. And that this was the proper line of surgical treatment that should have been adopted, is most clearly taught by every surgical author of acknowledged ability; and fully accords with every surgeon's practice and experience in serious gun-shot wounds. That it was not adopted by the distinguished surgeons in the case of President Garfield is to be regretted, and can only be accounted for, I think, in the confusion, excitement and the deep and overwhelming emotions incident to the terrible tragedy that so suddenly fell upon the Nation's venerated Chief; or from some hidden reason or condition, not stated by the surgeons nor revealed by the *post-mortem* examination.

The principle of surgery, applicable in such cases, is so plain and common-sense in its apprehension, and so universally taught, that it were folly to quote authorities in support of it. Nevertheless I shall be excused for quoting one, on account of his acknowledged high standing, and the great length of time the soundness of his teaching has been accepted as true and unquestioned. Sir Astley Cooper says: "When *bones are much splintered, an incision should be made, and every small particle with the greatest care removed. This injury, of all others, requires dilatation, as the incision will prevent the formation of pus.*" I could adduce from my own experience and practice several important cases, illustrating and demonstrating the truth and success of this line of practice, but the unvoidable length of this article admonishes me to desist.

But it is affirmed by his eminent surgeons and some others, that the President's wound was necessarily and inevitably fatal. I think this is an unsettled question, and fairly admits of doubt. In order to arrive at a just and correct judgment in this regard, we should critically analyze and study the nature and extent of the injury in its several parts; as well as take into consideration the sound and vigorous constitution and the wonderful vitality of the illustrious patient.

It will not do, in these days of the marvelous triumphs of modern surgery, when every cavity of the human body has been the field of the most daring and successful operations, and every tissue, viscus and organ bears testimony to the triumphant genius and miraculous skill of modern surgeons, to say that any wound is *necessarily fatal*, that does not make a serious breach into one or more of the vital organs. In President Garfield's case, all admit, there was really no vital organ or part injured. Why then should he die?

I suppose no one of any experience or reading will for a moment contend, that a gun-shot wound, simply fracturing one or more ribs, is *necessarily* fatal; neither would it be contended, that a bullet passing through fascia, muscular, cellular and connective tissues, however deeply penetrating, and not wounding in its track a vital organ, would inevitably prove fatal. Nor can it be admitted, that a gun-shot wound of the vertebræ, not involving any injury of the spinal cord, must necessarily end in death.

Dr. Hammond, in the "North American Review" of last December, quotes Jobert de Lamballe and Surgeon-general Longmore, of the British Army, as authority that gun-shot wounds of the vertebræ have recovered; and also related the noted case coming under the care and treatment of Dr. F. H. Hamilton, and by him after recovery presented before the "New York Pathological Society," all the members present concurring with Dr. Hamilton, that the vertebræ had been wounded. And also Dr. Lidell, in the "American Journal of the Medical Sciences," Vol. XLVIII, page 317, reports, in his experience in our late war, 10 cases of gun-shot wounds of the vertebræ, 4 of which recovered.

We all know and freely admit, that gun-shot wounds of the vertebræ are very dangerous injuries, and very generally fatal, but it is because the spinal cord inclosed in the vertebræ is almost always injured in such accidents; and it is this which imparts the character of fatality, and not simply the wound of the bony or cartilagenous structures. It is a little surprising that, in the discussions of this subject by eminent surgeons, since the death of President Garfield, they should have ignored the fact or given it no weight, that certain diseases of the spinal column, much more serious in character than gun-shot wounds of the spine, limited to the bony or cartilagenous portion, do frequently recover. Inflammation, tuberculosis and necrosis may involve the bones and cartilages of the spine, many of these, if not all, originating in a strumous or scrofulous diathesis of the constitution, some giving rise to large collections of pus, ultimating in psoas and lumbar abcesses, and yet many of these terrible diseases of the spine perfectly recover, minus the deformity resulting from the destructive necroses of bone and cartilage.

Professor Gross says, "A disease which makes such sad inroads upon the parts and system as this, is necessarily a grave disorder under any circumstances, but when it occurs, as it generally does, in children of a broken down, miserable constitution, ill-fed and half naked, or whose bodies are completely saturated with the strumous diathesis, the prospect of an ultimate cure must be very limited indeed. Many of such patients perish from hectic irritation, while the majority who recover are doomed to a wretched existence, permanently dwarfed and hump-backed; but in the better class of subjects *restoration* is the rule, death the exception; and it is well to know that, if the case be properly managed, excellent cures, with little or no deformity, may be made, even when the disease has already produced considerable structural change."

I may in all fairness ask, is a simple gun-shot fracture or perforation of the vertebra in a person of sound constitution and in vigorous health, more grave and dangerous than tuberculous inflammation and necrosis of the spine, in a poor,

sickly strumous subject? Most certainly not. Therefore, then should the wound of the vertebra of the late President have been necessarily fatal? Surely the *post-mortem* examination did not disclose any pathological condition of the bony structure or its cartilages, sufficient to necessitate a fatal result, while it did reveal the fact that the spinal cord had sustained no injury whatever.

We cannot admit the ingenious theory of Professor Weisse and Dr. Shrady, that the source of the septicemia was the suppuration of the cancellated structure of the wounded vertebra, since neither pus nor sanious matter was found in that locality in any quantity, if any at all, sufficient to produce any contamination of the system, while the large *pus-sacs* and long *pus-channels* on the right side of the body, connected with and leading from the fractured 11th rib, were quite sufficient to have produced all the morbid phenomena that ensued. And it is illogical and unphilosophic to attribute any morbid process to a minor and doubtful cause, when a larger and graver one is so apparent to account for it. Neither can we believe that the track of the bullet between the fractured rib and the wounded vertebra acted as a drain for pus from the vertebra, since the pus would have to travel an inclined plane to reach the point of exit, setting aside the universal law of gravity; besides, no pus was found in the track, though dilated, and neither did the track communicate directly with the long pus channel. We therefore must exclude the wound of the vertebra as being the necessary cause of *inevitable death.*

That the rupture of the traumatic aneurism was the *immediate* cause of death, I think cannot be doubted. But the question naturally arises, was the rupture of the aneurism a *necessary consequence* of the injured artery; or was it not rather the *result* of *deteriorated* and *broken down tissue* from *mal-nutrition* and septicæmia, which possibly might have been avoided by a different line of surgical treatment?

Leaving out of consideration the differences of opinion between the eminent surgeons who have spoken of the aneurism, as to the period and manner of its formation; whether it was

instantaneous with the wound of the artery or of gradual development, yet they all concur in the statement that the evidences were conclusive, that nature had made an effort to obliterate it, demonstrated by the numerous concentric layers of fibrinous bands lining the sac. If this be admitted, as it must be, from the disclosures of the *post-mortem* examination, then the conclusion is inevitable that, some time during this effort at reparation, something occurred to arrest it; the work of repair, so clearly begun, was stopped; and a retrograde movement took place. Now, if this arrest of nature's effort to repair could have been prevented, the aneurism had not ruptured, and the President would not have died of hemorrhage.

I will not be so presumptuous as to assert positively it could have been prevented; but I cannot avoid the conclusion that, if the right line of surgical procedure had been adopted at the start, such as I have indicated, and such as is taught and practiced by the most eminent surgeons in every country, those very serious complications which took place during the progress of the case, such as large pus-sacs and long pus-channels, might not have occurred; and hence no septicæmia to poison the blood, break down the vital forces, and arrest those efforts at reparation which nature had most evidently commenced. Then, as a logical and pathological fact, the death of the President was not an *inevitable* but an *incidental* result of his wound.

Now, in conclusion, I wish to state that I cast no blame or slur upon the distinguished and attentive surgeons of President Garfield; for, under the circumstances, taking into consideration the excitement and profound commotion of the hour, omissions and mistakes were natural enough, and are certainly excusable. I have written simply as a duty to my profession, to vindicate the correctness and applicability of a well recognized principle of enlightened surgery to the case of our late President. Other cases of a similar nature may happen, and it is incumbent upon the medical faculty to speak out, in no uncertain language, as well for their own intelligence and surgical reputation as for the interests of humanity, which should be paramount to every other consideration.

Preventive Measures Against Yellow Fever.

A Lecture for the Public,* by STANFORD E. CHAILLÉ, M. D., Prof. Physiology and Path. Anat., Med. Dept. Univ. La., etc.

War, famine and pestilence have been the three great scourges of mankind. From the horrors of famine civilized nations have escaped by progress in various directions, but especially in rapid transportation by steam. The frequency and duration of wars have also greatly decreased, and there is little reason to doubt that, as self-interest becomes more and more enlightened, wars will become still less numerous and prolonged. Although war tends to produce famine, although both war and famine tend to produce pestilence, and although pestilence has been greatly diminished by the reduction of wars and famines, it is, none the less, true, that pestilence (that is epidemic and other avoidable diseases) continue to be more destructive to health and life than war and famine have ever been. Therefore, the future has no problems to solve more important to the progress of mankind than those which concern the means by which the scourge of pestilence may be avoided.

To prevent disease, it is indispensable that a general and profound conviction should grow up among the people, that they have this matter under their own control, that disease is just as much due to violation of the health-laws of nature's God as the burning of a finger is due to the ignorant or careless application of fire. This century's unprecedented interest and progress in sanitation is chiefly due to man's gradual emancipation from the enervating belief (held by all savages) that disease, and especially epidemics, are attributable either to the malice of some evil spirit, say the devil, or to the anger of some good spirit, even of an all-merciful God. But, this emancipation is being accomplished so slowly that those observers, who fully recognize the significance of all such facts as that an ulcer on the tongue is not a penalty, as has been taught, for lying, but rather for an ignorantly or a self-indulgently deranged digestion, are constantly surprised to find

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how great continues to be the number of those who encourage an indolent submission to disease with the consoling sophism —"I won't die until my time comes"—and who subscribe to the view expressed in Milton's lines:

> "Incensed with indignation, Satan stood
> Unterrified, * * * and from his horrid hair
> Shakes pestilence and war."

Such beliefs discourage all rational efforts to prevent disease, and mankind will continue to be scourged by the dreadful lash of pestilence as long as these beliefs prevail, and, in large degree, proportionately to their prevalence. None except an enlightened people can secure efficient sanitary laws and officers; and, as long as the people continue to be ignorant, inactive and disunited, these laws and officers, even if they were perfect, must continue to fail to gain more than very limited victories in the warfare against disease.

There is one pestilence which has so scourged this city, that every year, at this season, all of us await with bated breath evil tidings of its advent, realizing full well that, should it gain foothold, not one of us, even if health and life were spared, could escape an aching heart and a scantier purse, and that New Orleans would be overwhelmed, for months, with mourning and disaster. The chief thing requisite to rid our city forever from its special pestilence is, that all its inhabitants should be convinced that this can be done and should determine that it shall be done. It is, then, of vital importance that all should have clear ideas of the means by which so great a benefit could be secured, and your attention is solicited to some considerations in respect to those measures which are calculated to prevent yellow fever.

In truth, there are only two preventive measures, namely, *cleanliness* and *non-intercourse;* although several subdivisions of each of these are, for convenience, usually made. What is the full significance of each of these words?

When the sanitarian advocates the cleanliness of a city, he means thorough cleanliness and purity, not only of person, but also of houses and streets, not only of food and water, but also, and above all else of the air; of that air, whose import-

ance to health and life, though supreme, is so ill appreciated. Thorough cleanliness of a city necessitates such construction of houses as would secure their perfect ventilation, leaving not one reservoir for confining foul air, and it necessitates a perfect system of sub-soil as well as of surface-drainage. Without these things, every breath inhaled may be impure and laden with the poison of a fatal disease. It is evident, that, to secure *perfect* cleanliness, New Orleans, like other cities, would require many years of labor, the expenditure of millions of dollars, and, to sanction these, a population exceptionally enlightened and prosperous. In order that you may realize this, consider the following facts: New Orleans has about 220,000 inhabitants, of whom I prefer not to state what proportion the sanitarian would condemn as unclean; it has about 40,000 houses, of which, with their out-houses, it is doubtful whether one is *sanitarily perfect;* it has about 35 miles of very objectionable drainage canals; it has, in general use, 586 miles of streets, of which 472 miles are unpaved, ill-conditioned dirt-roads; it has many more miles of ill-graded and ill-constructed gutters, which furnish a very defective system of surface-drainage; and it is entirely destitute of the sub-soil drainage, indispensable to perfect local sanitation. Manifestly, the present generation cannot hope to correct all of these sanitary defects,—none the less, we have no duty more important than to contribute all we can to this end. Our special need is that every household should realize so fully the vital importance of securing, from at least April to October, the utmost cleanliness of its own domicil, vault, street and gutters, that there would be no hesitation in devoting one's own labor to perfecting any of this work, which officials may neglect.

Absolute non-intercourse with the poison of yellow fever is now as impracticable as *perfect* local sanitation. We must live, we live by commerce, and this would be imperiled by such non-intercourse as would render the importation of any yellow fever poison impossible. Hence, we are compelled to compromise, first, by establishing outside the city, quarantine against vessels and their contents, thus striving to reconcile the interests of health and commerce; and, second, by resort-

ing, within the city, to what is termed *isolation*, that is, to non-intercourse with infected persons and houses. Cleanliness is an indispensable adjunct to quarantine and to isolation, and, disinfection is so essential, in communicable diseases, to cleanliness, that cleansing and disinfection are always implied, whenever the words quarantine and isolation are used. Having explained the significance of cleanliness and of non-intercourse (as practiced), other points will now be considered.

I once believed what many doctors then believed, but few do *now* believe, viz: that yellow fever originated in New Orleans, especially in the filth of its hot, moist summer, and that this disease was not communicable. The few who continue thus to believe, are satisfied that the removal of this filth, by local sanitation, would prevent the origin of the disease, and that thorough cleanliness is, therefore, the all sufficient and only means for its prevention. The majority of sanitarians, and I among them, reject this view, and believe on the contrary, that the origin of yellow fever is shrouded in as impenetrable a mystery as is the origin of every animal, every plant and every communicable disease, and that, while the poison of yellow fever is communicable and always imported, it can, under favorable circumstances, lie dormant, like a seed or an egg, then after an undertermined period, probably not less than one year, flourish again with vigor. While this majority do not believe that filth can *originate* yellow fever, they do believe that filth is indispensable for its growth. Hence, these two different theories fortunately fail to cause any practical difference as to the need for local sanitation, and all unite in urging thorough cleanliness as a certain remedy against the prevalence of yellow fever. But, unfortunately, these different theories do cause great disagreement as to the value of non-intercourse as a preventive remedy. So that, quarantine and isolation are scouted by one party and clamorously demanded by the other. In addition to these two parties, there is a third, which holds both views, believing that yellow fever does sometimes originate here, and is sometimes imported. This third party unites with the second in advocating quarantine and isolation, but, with less confidence and

zeal. Since these three theories include all the possibilities of the case, one of them must be true.

As to which one is true I warn you that such plausible arguments can be cited in favor of each one of them, that I believe it in my power to convince the majority of any non-professional audience that either one of the three is alone true. Most people believe whatever their own doctor happens to believe, and there are few, even of the doctors, who have had the experience, and have devoted to the subject the special study necessary to comprehend it in all its bearings. After all, the sole question, theoretically important, is whether yellow fever is ever at any time a communicable disease, and not whether it is always communicated, for, even small-pox is not always communicated. Respecting this question, let me again warn you, that those, who may weary you with innumerable well known instances of the failures of yellow fever to be communicated, are only diverting your attention from the only points now really at issue, which are, first, whether there are not some instances inexplicable except by the theory that yellow fever is communicable, and, second, whether this disease does not show a manifest preference for routes of travel? In either case, the disease must be communicable. But, discarding all theories, the sole question, practically important, is whether quarantine and isolation are justifiable and prudent precautions against yellow fever? Now, isolation is the same remedy applied within a city as is applied at its quarantine stations; if the one be justifiable so is the other, therefore, concerning the whole subject, the chief practical question is, whether quarantine ought to be enforced. Well, since we have a quarantine, what need to discuss this question? Simply because of my conviction, that the efficiency of a quarantine depends chiefly on the unanimity and zeal with which it may be supported by the people, that our quarantine has not the support desirable, and that this dangerous defect is due to the fact that, while many of our citizens deny, a still larger number doubt the utility of quarantine.

There are arguments in favor of quarantine which appeal to one's common sense so strongly that they leave, it seems to me, no room for doubt. Among these are the following:

In modern times many diseases have been proved to be communicable which had long been believed not to be so, and, since there are few, if any instances of the reverse, it is probable that the disagreements about yellow fever will finally terminate in the same way that other similar disagreements have terminated. Another probability is derived from the fact, that the weight of professional opinion preponderates enormously in favor of quarantine, to such extent that I have sought, in vain, to find a single modern medical text-book which fails to advocate it. Again, in all disputable matters, prudence should cling to the side on which the greater safety lies, and the benefit of the doubt should therefere be given to quarantine. Farther, the law requires it, and every good citizen should obey the law. Still farther, public opinion, outside of New Orleans, imperatively demands it, and would, no doubt, force it, if necessary, upon this city.

The only serious argument against quarantine is that it uselessly injures commerce. This is unquestionably true, provided that yellow fever be not a communicable disease. But if it be communicable, then this argument is absurd, for, in such case, quarantine would, in truth, serve to protect commerce. Quarantine restricts commerce solely with infected ports, the value of this commerce is much less than that with uninfected ports and infinitely less than that with inland communities. Yellow fever injures all of this commerce so greatly, that if quarantine protected us from even one out of twenty epidemics, the amount thus saved would amply repay all the loss incurred by many years of quarantine-restrictions on our commerce with infected ports.

A serious misapprehension about quarantine also deserves attention. Its opponents declare that it should be abandoned because it has failed and must always fail to give protection. In truth, quarantines have very often failed and will, without doubt, often fail again. A perfect quarantine, one capable of securing absolute non-intercourse with the poison of yellow fever is even more impracticable than the prevention of all smuggling. Never even as efficient as practicable, most of them have been and many of them still are merely sham-compliances with the law and with the theory on which quaran-

tines are based. But they have become and are destined to become still more efficient. While, at the very best, they could not exclude all risks of infection, yet at the very worst they probably do exclude some of these risks; the proportion of risks excluded varying, of course, with the degree of quarantine efficiency. To me the evidence is irresistible, that imperfect as they have been, therefore failing often, they have, none the less, succeeded repeatedly. In fine, if quarantines serve to exclude any of the risks of infection, then they are as justifiable as are breastworks in war. In either case, health and life continue to be endangered, but, very much less with than without them.

Another objection to quarantine must be noticed. If thorough cleanliness of this city would prevent yellow fever, as all agree, then, why not release commerce from the burthen of quarantine and devote all our efforts wholly to local sanitation. The answer is, that thorough cleanliness will continue to be impracticable for generations at least; that no one pretends to know what degree of cleanliness would suffice to prevent yellow fever; that, whatever that degree may be, there is every reason to believe that it is now unattainable at least by us; and that, with this dangerous probability staring us in the face, it would be reckless to abolish quarantine, if this serves to exclude any risks of infection. In the mean while, I think you will find that the advocates of quarantine are promoting even local sanitation more actively than their opponents.

Now, if common sense has led one thus far, it will certainly drive him to the conclusion that every good citizen should do all in his power to render our quarantine as efficient as is practicable. Even those who believe it a useless burden ought to aid its rigid enforcement, for present circumstances compel us to try the experiment and this compulsion will never cease until experience has conclusively proved that a quarantine, as efficient as practicable, must always fail to exclude any risks whatever of infection. If there be any way, then, in my opinion, the best and quickest way to get rid eventually of quarantine, is to enforce it now most rigidly. The immediate interest of many will continue to induce them to strive to abolish

and to evade it, but these individual interests should be unhesitatingly sacrificed in behalf of the permanent general welfare.

Although much has been done during the past thirty years, as my own personal experience enables me to testify, to promote the cleanliness of this city and to render its quarantine more efficient, thereby greatly reducing our numerous risks of infection, yet, all, who are well informed, know well, that so much remains still to be done by ourselves and our successors, that yellow fever may appear, in spite of everything which has been or can now be done.

Should it appear, then, there is, to prevent its spread, only one remedy recommended which inspires any hope of success, namely, isolation together, of course, with disinfection. Unfortunately, the proper application of this remedy is as difficult, and certainly as dependent on popular support as is the attainment of thorough cleanliness and of a perfect quarantine. To isolate effectually a case of infectious disease requires usually that the house in which it occurs and all its inhabitants should also be isolated; all outside intercourse, if not wholly prohibited, must, at least, be restricted within very narrow limits and must be regulated by precautions very vexatious to all subjected to them. Whoever will bring the case home to himself will best realize the very natural feelings and conduct of the sufferers and also the resulting difficulties imposed on sanitary officers.

It is the freeman's boast that "his house is his castle," and, he claims that its secrets must not be exposed by the physician nor its privacy be invaded by the sanitary officer. Farther, every one instinctively recoils from having his private misfortunes exposed to the public and from thus becoming a cause of dread to neighbors and friends. While enduring sickness, in one's self or in one's household, it seems very grievous to increase this personal misfortune by seriously curtailing, by non-intercourse, all the ordinary pursuits, not only of pleasure, but also of business; and of business on which the welfare of the household may depend. It is evident that such burthens will not be willingly endured by any except those few, who, not only, strive to do unto others as they

would be done by and to love their neighbors as themselves, but, who also fully realize that these burthens must be borne, in order that the misfortune of one household may not be extended to others, that the poison from one person may not be so extensively disseminated that the entire community, aye many communities, may groan in anguish over thousands of graves which doom to poverty, as well as to sorrow, innumerable helpless women and children. It is also evident that the many good people who believe, that yellow fever is not communicable, that isolation is worse than useless and that the sanitary officers who would enforce it are interested hirelings, perhaps humbugs also, will never submit to such burthens unless forced thereto by the might of public opinion coming to the aid of the law. In the present condition of public opinion, sanitary officers would find it always difficult and generally impossible to cut off all risks of infection by isolation. They cannot do more than diminish the number of these risks, and, therefore, the advocates of isolation can not reasonably hope for more than, that its successes may eventually become sufficiently numerous to convince the public that its many failures are due to the inefficiency, not of the remedy, but of its application.

There is an additional and perhaps still greater difficulty in applying isolation effectually. Manifestly, its best chance for success would be at the very *outset* of the *first* case. The chances of success decrease so enormously with an increase of cases, that it is generally useless to attempt isolation except with the first cases. Now, it is excessively difficult for sanitary officers to procure prompt notification of the first case or cases of any communicable disease. In England this very important subject excites great public interest, and several laws have been enacted to promote it,* but, in this country, little has been

*The *Br. Med. Jour* , June 17th, 1882, reports recent proceedings in the House of Commons on the "Compulsory Notification of Infectious Diseases." To effect this, Parliament has enacted laws for 23 towns and 3 others are now applying for the same. The results in all have been so favorable that "in no single case had these laws been otherwise than conducive to a very highly improved state of sanitation in every locality in which they had been enforced." Experience has resulted in disarming all medical and other opposition. In some townships the attending physician alone, in others the occupier of the house, and in others both are compelled to notify the sanitary authorities. Experience strongly favors the compelling of both to give notice. The attending physician is paid 20 to 50 cents for every notice. The penalty for every violation of the law is ten dollars. The hope and belief are expressed that a General Act, applicable to the whole Kingdom, will soon be passed.

effected, and there is good reason to believe that, in this city, the prompt notification of yellow fever is regarded with decided hostility by a majority of the public, and that the action of our sanitary officers and of our physicians is thereby prejudicially influenced. This hostility, together with the facts, that physicians have not opportunity to see every case of yellow fever, and that medical science continues incompetent to recognize all cases of yellow fever, even if physicians should see them, cause the prompt notification of this disease to be beset with difficulties so great, that the isolation of the very first case at its outset would be an unusually lucky chance. The incompetency of medical science to distinguish every case of yellow fever and the hostility of public opinion to all alarms about this disease have such an influence upon the prompt notification, indispensable to prevention, that these two subjects deserve further consideration.

The public entertains the very erroneous belief that, *any* doctor and specially any *New Orleans* doctor, who understands his business, can recognize yellow fever whenever he sees it. Indignation masters me when I recall some instances of the gross injustice perpetrated by the public in consequence of this error. The truth is, that, whilst most cases of yellow fever can be recognized readily even by the ignorant, there yet are many cases which the wisest, most erudite and most experienced physicians cannot, with certainty, distinguish, i. e., diagnose. Difference of opinion and controversy are such inevitable results that yellow fever has never occurred, at any time, in any place, without giving rise to them. A few, out of many proofs, will be cited from the writings of some of the most distinguished and experienced of our deceased friends and fellow-citizens.

Dr. Hester taught that, "in the early stage of mild attacks of yellow fever, no one would pronounce a definite diagnosis." Dr. Fenner taught that, "the diagnosis of yellow fever, in its mildest form and with the earliest cases, is by no means an easy task," so that in 1846, when "the first cases were few and scattering, it was difficult to find two physicians who would agree as to the diagnosis," and, even after the disease was well

under way, "there were still one or two influential physicians, who openly expressed their doubts as to there being any genuine cases of yellow fever." In respect to a subsequent year, Dr. Fenner said, "the usual variety of fevers were to be seen, * * * and the customary difficulty existed of diagnosing between cases of severe remittent and of yellow fever." Dr. Axson taught, "we are all so accustomed to see, in the recurrence of our hot seasons, cases of fever, occupying so debateable a position between the malignant forms of remittent and yellow fever, that no physician, accustomed to the differences of opinion they occasion, ever thinks it a warrantable ground to hold his neighbor amenable to public censure because he happens to differ in judgment on the merits of the case." "The medical annals of yellow fever, not only here, but wherever it has prevailed and found an historian, abound with evidence going to show the difficulties and contrariety of opinion attendant on an early and correct recognition of the genuine type of the fever. To this doubtless are due the many and angry controversies that compose a part of its medical history."

The history, both of 1878 and of 1880, has recently proved that our living physicians are as liable to these controversies as were their dead predecessors and that those of them, brave but unfortunate enough to be on the side which may be opposed to public opinion, risk the denunciations of a prejudiced but unanimous press. Reminding you, that the press strives and rarely fails to reflect public opinion, I will cite, from one of many sources, evidence of what an old, old story this denunciation is, by quoting the following instructive sentences from Dr. Fenner's history of our great epidemic of 1853.

"When informed of the first cases of yellow fever that appear in summer, the newspaper-press almost invariably denies the truth of the reports, and, not unfrequently showers upon the head of those *whose duty it is* to pronounce upon the character of prevailing diseases, volumes of abuse and ridicule. If the cases multiply and the signs of the times plainly indicate the approach of an epidemic, the able editors of our valuable daily journals, under what I must pronounce a most erroneous

impression of their duty to the public, studiously endeavor to conceal or suppress the true state of affairs. The results of this course are, in the first place, to deter some of our most respectable physicians from saying a word about the first cases of yellow fever they see, on account of the disagreeable notoriety they must incur; and, secondly, to induce many persons, who wish to leave the city as soon as yellow fever appears, to remain until they are exposed to imminent danger for want of correct information." And, Dr. Fenner might have added as a third result, the destruction of the confidence of neighboring communities in our truthfulness, thus stimulating them to panics and needless quarantines. Dr. Fenner continues "all this is wrong from beginning to end." "'Tis vain for us to expect to get clear of such an enemy to our happiness and prosperity as yellow fever by shutting our eyes against the facts annually presented to our view, by repudiating the disease or denying its existence in our midst, until its frightful ravages gain publicity in spite of us and call forth the pity and charity of the benevolent throughout the union."

These truthful words, in 1854, have been often denied since. Whoever desires conclusive evidence of their truth, will find it by comparing the reports of the press, at various times, when yellow fever has appeared, with the medical reports published thereafter.* Such a comparison would furnish press and public a most instructive lesson.

What causes such a condition of public opinion, which, by-the-bye, characterizes every place where yellow fever prevails? One of the most distinguished men in this State recently wrote as follows: "Commercial bodies are habitually opposed to recognizing the existence of yellow fever, as long as the facts can be suppressed, and local boards of health, being under the influence of these bodies, are prone to yield to their influence." New Orleans is virtually a commercial body, and like other such bodies, prefers the immediate profits and temporary prosperity directly at hand to the far greater future

* In 1882 the whole truth about the first case of yellow fever was promptly announced by the Board of Health and published by the press on June 27th and 28th.

profits and permanent prosperity in distant prospect. To sacrifice future good, vaguely realized, to present gratification, vividly appreciated, is as unwise, yet as natural, in communities as in individuals.

If the permanent welfare of this city depends at all on the prevention of yellow fever, then public opinion should encourage the utmost publicity as to everything which concerns this disease. The chief obstacle to prevention consists in the fact that yellow fever, by nature's law, is pre-eminenly a "pestilence that walketh in darkness." Can we hope to prevent it, while man persists in voluntarily adding obscurity to that which nature has already clouded with perplexing darkness? Even false alarms, if founded on reasonable evidence, should be patiently endured instead of being indignantly denounced, for, such alarms are unavoidable, in order to be warned in time of real danger. The proofs of this are ample.

As many plants die, for lack of favorable surroundings, without producing fruit, so, many cases of yellow fever never spread. Such fruitless or sporadic cases cannot be contra-distinguished from others, hence require all preventive precautions; further, the law demands their report and, yet, whoever reports such cases originates false alarms. In addition, the incompetency of medical science to diagnose with certainty every case of yellow fever has caused frequent mistakes, so that even the most skillful physicians have been forced, in numerous instances, to admit, that certain fevers, which they had not believed were yellow fever, have finally proved, beyond question, to be this disease. If yellow fever be communicable, then preventive measures should certainly be applied to *all doubtful cases*; this cannot be done unless such cases are reported, and they cannot be reported without giving rise to some false alarms. These instances suffice to prove that, in order to apply preventive measures, with favorable chances for success, false alarms, founded on reasonable evidence, are unavoidable.

What else can frail human nature expect? Man has no enemy so insidious and fatal as communicable disease. What

other enemy does he escape without false alarms? Not one, whether it comes from the hand of God or the hand of man. Storms, floods, famines, conflagrations and wars, all have false alarms as inseparable attendants. All know that they are frequent in fires and in war, that, they, when founded on reasonable evidence, insure greater safety, and that prudent commanders, often even order false alarms to be given in order better to secure the training needed by their men, when danger is really at hand. The public has yet to learn, that, to overcome communicable diseases, it must submit to inconveniences and must employ precautions similar to those which protection from fire and from the weapons of an armed enemy necessitate.

It may be urged that false alarms about yellow fever are calculated to inflict more harm and effect less good than false alarms about fires or armed enemies. This might prove to be the case temporarily, but, to secure the truth, some false alarms cannot be avoided, and I have an abiding faith in the good policy and in the ultimate triumph of all honest efforts necessary to secure the truth. Tolerance of those false alarms which are founded on reasonable evidence, would inspire greater confidence, both at home and abroad, in our efforts for prevention; such alarms would render less frequent those more numerous ones, which have no reasonable foundation and are avoidable; and they would greatly strengthen the power of self-protection. My conviction is firm that this city has much less to fear, for its permanent welfare, from the utmost publicity of everything relating to yellow fever than it has to fear from any suppression and concealment.

Although it has been shown that all three of our preventive measures, cleanliness, quarantine and isolation, are still too defective to protect us with certainty from all risks of infection, there is much to encourage us to persevere in our efforts to render these three measures more and more efficient. Such efforts would deserve to be advocated even if it could be known that they would result in disappointment, for, active warfare against life's evils is infinitely preferable to inactive submis

sion, since the former always promotes progress and brings some reward, even if not always the one expected. I, therefore, strenuously oppose those who, hopeless of preventive measures advocate a do-nothing policy, who believe even that the wisest course to pursue is rather to promote than to prevent yellow fever, so that all would gain immunity by acclimation. Such a policy ignores the facts, that unacclimated children and immigrants would continue to propagate the poison, and that our neighbors, on whom much of our commerce depends, object so strongly to the dissemination of this poison among them, that their commerce would be lost to us. Further, New Orleans pursued this policy until 1855, Havana and some other cities still pursue it, and these examples justify every effort to go and do otherwise.

The last subject for consideration is, what is our duty to our neighbors in regard to yellow fever? All, who believe it a duty to love our neighbors as ourselves, must admit, that all reasonable demands, for whatever they deem needful for their own protection, should be fully conceded. But, what are reasonable demands? In my opinion, all which tend, in anywise, to throwing the fullest light on the "pestilence that walketh in darkness," and to preventing its introduction, first, into this city, whereby our neighbors are unavoidably endangered, and, next, from this city into their own communities. If constitutions and laws stand in the way, then civilization will eventually recognize the necessity and find the means to rectify these and to remove all obstacles. For instance, should the prevention of yellow fever continue, as unmanageable as heretofore, the day will eventually come, when surrounding States would no more suffer this State to permit infected ships to enter the Mississippi than they would now suffer Louisiana to welcome a hostile fleet of iron-clads; and, no more suffer New Orleans to conceal the presence of yellow fever than they would now suffer this city to harbor a band of robbers who threatened them with secret invasion.

We have our full share of good citizens, who prefer idly to dream of a Golden Age in the past rather than actively to pro-

mote its future realization. These are apt to ask, what is the use of all this fuss in recent years about yellow fever, and why can't people let it alone as they used to do? The answer is manifest. At least three causes have co-operated to inaugurate this reformation which must progress since these causes are destined greatly to increase. First, the conviction has become much stronger that yellow fever is a communicable disease and can be prevented; second, the number and density of the population endangered by its importation from this city has greatly augmented; and, third, our means of transportation have so much increased, in number and rapidity, that surrounding communities are now subjected to many more risks of infection than formerly. These causes force New Orleans either to keep step with the progress of the times or to be trampled upon. Its citizens have it in their power to brandish the shield of our beloved city in the very van of sanitary progress; on nothing does their permanent welfare more depend, and, therefore, no citizen can labor in a better cause.

Early Joint Affections in Syphilis.

By GEORGE H. ROHE, M. D.,

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The "painful joints" of the early eruptive period of syphilis are well known to every one who has had any experience in the treatment of the disease. They are present in a very large proportion of cases, but mostly last only a short time. Sometimes, however, they are very persistent and tax both the patience and therapentical resources of the physician to no mean degree.

But it is not of this familiar complication or symptom as it may almost be called, from its frequent presence, that I purpose speaking in this paper. Another and graver form of joint affection occurs in the early stages of syphilis, but to a much less frequent degree than the simple arthropathy just mentioned. It occurs so rarely, in fact, that some authors

doubt its existence altogether. This form consists in a painful swelling and redness of the joint attacked, bearing a considerable resemblance to true sub-acute rheumatism. In fact, "syphilitic rheumatism," if not made to include the simpler variety above referred to, is a sufficiently distinctive term for it. According to Lancereaux (*Traité Hist. et Prat. de la Syphilis*, p. 183), Babington deserves the credit of having first clearly pointed out the distinction between the articular affections of the secondary and tertiary period.* Lancereaux gives two cases in full and refers to several others observed by him. The symptoms have a great resemblance to rheumatism. In both diseases the joints are swollen, red and painful. In syphilis, however, the swelling and redness are less extensive than in rheumatism. The patients describe the pains as breaking or tearing, subject to nocturnal exacerbations, and *slightly* increased on movement. The knees, wrists and elbows are said by Lancereaux to be most frequently attacked. Rarely is a single joint affected. Fever, if present, is generally much less than in rheumatism, in fact, the inflammation is decidedly subacute in the syphilitic arthropathy. Vaffier (*Du Rhumatisme Syphilitique*, Paris, 1875) states that according to his observation, early joint-affections are much more frequent in syphilis than is generally believed. He asserts that in China and Japan syphilitic rheumatism is very frequently observed—is seen, in fact, in nearly every case. He further states that it occurs oftener in France than one would be led to suppose from the scanty reference to it in the works of systematic writers on syphilis. Voisin (*Contrib. a l'etude des Arthropathies Syphilitiques*, Paris, 1875,) also testifies

* As a matter of some interest I subjoin the language of Babbington. In commenting on the following statement of Hunter's: "I do not know that I ever saw the lues venerea attack the joints, though many rheumatic complaints of those parts are cured by mercury, and therefore supposed to be venereal," Babbington adds in a note:

"The statement seems to be general. Cases occasionally, though rarely, occur where inflammation of the synovial membrane of the joints shall take place in union with secondary symptoms of lues venerea of an undoubted character; shall increase in severity during the increase of the other symptoms; and shall subside as soon as mercury is sufficiently used; and the eruption or sore throat are controlled by its exhibition. In such cases the synovial inflammation has an acute character, and is attended with a degree of pain and tension and superficial redness which sufficiently distinguishes it from that languid form of the same affection which is common under circumstances of general cachexia whether that cachexia has been produced by mercury acting as a poison, or by the long duration of the venereal disease itself, which has been allowed to continue till every function necessary for the maintenance of nutrition and of health has become deranged and the patient has been reduced to a state which closely resembles scrofula." *Hunter and Ricord. on the Venereal Disease*, Edited with notes by Freeman J. Bumstead,, M. D. Philadelphia, 1853. Pp. 491.

to the frequent occurrence of syphilitic arthropathies in the secondary period. They may occur either as simple painful joints or as acute or subacute inflammation. Bäumler (*Ziemssen's Cyclopedia*, vol. 3, p. 127) refers to affections of the joints at the outbreak of eruption, but does not seem clearly to distinguish between the real joint inflammation and the simple joint pains which are common enough. He quotes Volkmann as having "once or twice seen cases which, at the period of the acute invasion of syphilis, together with an unusually marked syphilitic exanthem and violent fever manifested a similarity to acute articular rheumatism." Bumstead and Taylor (*Path. and Treat. of Venereal Diseases*, 1879, p. 687–8) give a pretty good account of both the simple and inflammatory forms, but give no indication of the comparative frequency of the latter.

J. E. Atkinson (*Maryland Medical Journal*, 1877.—Reprint), in an analysis of one hundred cases of early syphilis in the Negro race, found five cases of synovitis, which he thinks is much in excess of the proportion of white patients. In these cases the knees were the only joints implicated. Keyes (*Venerial Diseases*, New York, 1880, p. 8, 182) refers briefly to the joint affections in the secondary stage, but makes no attempt to differentiate between the rheumatoid pains and the inflammatory form under consideration. While most of the authors cited agree that a knowledge of the relative frequency of syphilitic joint affections is by no means so well diffused among the members of the profession as it ought to be, they, in addition, generally recognize the greater frequency of these manifestations of syphilis as compared with the statements of older authorities. On the other hand, Zeissl (*Lehrbuch der Constit. Syphilis*, Erlangen, 1864, pp. 263–5) states that, aside from the early rheumatoid pains which are very frequent, he has seen very few cases of joint affection in syphilitic patients, although his opportunities for observation were exceptional. He seems strongly inclined to doubt the etiological relation of the syphilis to the joint trouble. Very recently Mracèk (*Wiener Med. Presse*, Nos. 1, 2, 3, 4, 5, 1882), has contributed an excellent bibliographical and clinical paper on the subject, in which he publishes a number of cases occurring under his observation.

In the literature on syphilis accessible to me, other than that referred to, these arthropathies are either not mentioned at all, or passed over with a mere reference. With the view of adding to the number of recorded cases, I venture to report one recently under my care.

The patient is a dark mulatto woman, forty years of age, married; has had no children and no abortions. In January last, she was attacked with painful joints, which were, however, not swollen. At the same time she noticed an eruptien of "dark spots and pimples," especially localized about the arms, trunk and buttocks. She had also had sore throat and frequent headaches. At the time I was consulted, February, 1882, her condition was as follows:

The entire body, except the face and hands, was covered with a disseminated papulo-crustaceous eruption, which was especially thick upon the buttocks and upper portion of the thighs. The inguinal sigmunds, and post-cervical glands were enlarged. No initial lesion was discoverable on the vulva, although several flat papules were observed on the mucous surfaces of the labia. The patient could not recollect having a sore upon her genital organs. The eruption had existed for about two months, but had not caused much inconvenience. I was consulted for a painful swelling of the left ankle joint, which had existed about two weeks, and which the patient called "rheumatism." She hobbled into the room with the aid of a stick, and seemed to suffer considerable pain when bearing her weight on her left foot. On examination the left ankle was found somewhat swollen, the skin surrounding the joint was shining and edematous and slight lateral pressure on the malleoli, elicited a decided protest from the patient. The swelling, though not very great, had the doughy feel characterizing the presence of effusion. The right ankle was also swollen and painful, but less so than the left.

The patient was ordered one thirty-second of a grain of bichloride of mercury with twenty drops of tincture of chloride of iron four times a day and the ankle-joints bandaged with a flannel roller.

During March the swelling and pain in the left ankle dimin-

ished, but the swelling and pain in the right ankle now began to increase, especially on motion. The heads of the tibiæ and the humeri also became tender on pressure, but no increase in size of the joints could be noticed. The left elbow became painful and tender and more recently the patient complained of pain in the left metatarso-phalangeal articulation of the great toe. Periosteal swellings have begun to make their appearance on the left tibiæ. The eruption at this date (April 20) has entirely disappeared.

The treatment has consisted in the persistent use of the mercury and iron, with bandaging of the affected joints. The pains have nearly disappeared and the swelling persists only in the left ankle-joint—the one first attacked. A mercurial plaster which has lately been applied over this joint seems to have a favorable effect on the swelling.

A curious fact connected with the case is that in every instance the left joint was affected before the corresponding joint on the opposite side became involved.

My object in placing this case on record is to recall attention to the occasional occurrence of joint affections resembling subacute rheumatism in the early stages of syphilis in order that by appropriate (anti-syphilitic) treatment they may be relieved. A failure to recognize the true character of the trouble in time might have the loss of function of the joint as a result.

The chronic joint-swellings of the later stages of syphilis pursue such a different course, are dependent upon entirely different pathological condition, and are moreover so much more frequent and better known than the rheumatic inflammations of the secondary period that I have considered it unnecessary to more than refer to them in this paper.

A Complicated Case of Ovariotomy.

By W. W. WALKER, M. D., Schulenburg, Texas.

Mrs. B. T., ætat, 60 years, English, menstruated in 16th year; at first menstruation was normal; caught cold by getting wet in a storm, after which each period was accompanied with

intense pain in right ovarian region, which continued until after marriage, which took place in her 22d year. She bore four children; health good until after menopause, when she was attacked with catarrah of nose and infra-orbital neuralgia, for which in 1876 I trepanned the antrum and ethmoidal cells, evacuating a large amount of mucopus, giving relief to neuralgia. I saw no more of the case until April 15, 1882, when she consulted me for an abdominal tumor size of a man's head. After making thorough examination by palpation, then introducing a sound into bladder and uterus. I diagnosed right ovarian cystic tumor with pelvic attachments; the tumor could be rolled from the right toward the left side, but could not be raised out of pelvis. After fully explaining to her the unusual risks in her case, on account of age and attachments of tumor, she urged me to operate, saying, "I would rather die under the operation than to linger along for years, a misery to myself and my family." I could not refuse to operate, so I put her on tonics and alteratives and warm baths every night followed by friction, sent her home to consult her children and make her will, hoping she would not return.

May 3, 2 P. M.—Assisted by Drs. A. D. Paulus, of High Hill; J. C. B. Renfro, of Flatonia; W. A. East and J. E. Lay, of Hallettsville; J. E. Burford, of Weimar, and J. D. Brown, of Oakland, we commenced the operation, Dr. Burford administering the anesthetic "Squibbs chloroform and ether equal parts by weight," Dr. Lay controlling the spray. An incision was made in linea alba from one inch below umbilicus to one inch of symphisis pubis. The tumor was then exposed showing characteristic pearly color of ovarian cysts, but was very nodular. A Spencer Wells trocar was plunged into tumor and a small amount of thin ovarian fluid withdrawn, the opening was enlarged with scissors, when a large number of small cysts, without pedicles, and resembling soft shelled eggs, popped out with force sufficient to clear the abdomen three or four inches, when this compartment was emptied, the hand was introduced into the sack and another wall broken down. This was filled with eggs as the first and main division. Still a third sack was broken open

with like result. The tumor being emptied, I commenced the separation of the attachments, first from the omentum, which was tied, then from illeum and appendix vermiformis, which was done by cutting with scissors a part of the sack wall out. The bladder was next peeled off from sack of tumor. We now found our trouble had just commenced, as the tumor extended very low between the bladder and vagina ; was attached to the entire anterior and right side of the uterus, and to posterior abdominal wall over a space four by six inches. These adhesions were so firm they required the continual use of scissors and scalpel (at this time the bone connections between the boiler and lamp of Weiss, spray apparatus gave way, allowing the lamp to drop to the floor, and causing us to have to finish the operation with only partial antisepsis); the pedicle being reached, was tied in three divisions, with No. 11 braided silk and dropped. The abdomen was well sponged out by Dr. Renfro, Paulus and East, all oozing having ceased. A drainage tube was carried through the right side of Douglas culde-sac, and out at the lower angle of the abdominal incision, which was then closed by seven silver wire sutures.

The patient was cleansed: absorbent cotton, first dipped in carbolized water, placed over wound, a piece of mackintosh over this, a flannel bandage applied, and the patient placed in bed, surrounded by bottles of hot water, over which woolen half-hose had been drawn. Tem., 97¾; Resp., 40; Pulse, 144. Gave ¼ gr. morphine hypodermically ; reacted well ; no vomiting or nausea ; says she feels comfortable ; allow ice as often as asked for.

6 P. M.—Temp., 99¾; Resp., 28; Pulse, 122; resting well.

12 M.—Temp., 100; Resp., 24; Pulse, 120; 2 ozs. urine by catheter.

May 4th., 6 P. M.—Temp., 102½; Resp., 22; Pulse, 112; 2 ozs. urine; washed out abdomen through drainage tube. Iced milk. Give 1 gr. opium, 10 grs. quinia per mouth; no nausea; applied ice bags over abdomen.

12 M.—Temp., 101; Resp., 20; Pulse, 104.

6 P. M.—Temp., 101¼; Resp., 20; Pulse, 108. Some muscular tremor; 2½ ozs. urine; give 1 gr. opium; washed out abdomen.

12 M.—Temp., 101½; Resp., 20; Pulse, 108; gave 10 gr. quinia.

May 5th, 6 A. M.—Temp., 101; Resp., 20; Pulse, 108; 4 ozs. urine; gave 1 grs. opium. Washed out abdomen. Rested well during night.

12 M.—Temp., 100½; Resp., 20; Pulse, 110; Gave 10 grs. quinine.

2 P. M.—Commenced coughing, expectorating viscid mucus; gave 1 gr. opium.

3 P. M.—Cough worse, expectorating freely a viscid tough mucus, very nervous; says cough will kill her; gave ¼ gr. morphia hypodermically; muscular tremor increasing.

6 P. M.—Temp., 103; Resp., 18; Pulse, 124; 8 ozs. urine. Washed out abdomen, resting better, mucus rales over both lungs.

9 P. M.—Temp., 103½; Resp., 16, labored and rattling; Pulse 140. Very feeble, patient sinking, coughing worse, mucus rales increasing. Death ended the scene at half-past twelve, fifty-eight hours after operation. I opened abdominal wound, which had adhered except at lower angle, where the drainage tube was. Internally the wound was in a healthy state, no sacks of pus or serum were found. Plastic lymph had been poured out. There was entire absence of any signs of septic poisoning.

This case is interesting from the large amount of adhesions. It continued favorable progress until bronchitis set up. I know of no case on record where the sac was filled with egg-shaped cysts, with no attachment to main cyst wall, and no pedicles. Drs. Renfro and Paulus counting one hundred and twenty from size of a partridge egg to a hen's egg, besides those that had fallen on the floor and been crushed by our feet. I would advise all who use Weir's Spray Apparatus to examine the three pillars, connecting the lamp with the boiler, to see if they have not become charred and brittle before they commence operating, and thus avoid my misfortune. To the gentlemen who assisted me I return my thanks, and especially to Dr. Paulus, who continued to visit the case and assist me in the after treatment.

Compound Fracture of the Skull, Etc.

By DR. GEO. W. LEWIS.

Read before the New Orleans Medical and Surgical Association, May 6th, 1882.

In compliance with the rules of our association, I purpose reading this evening a short history of a case of injury of the head now under treatment in Ward 9 of the Charity Hospital. There is nothing extraordinary or unusual to report in this case, but it is interesting. In fact all cases of fracture of the skull giving rise to mental disturbances for a time, and terminating in recovery after surgical interference, must, in every particular, be interesting to the medical practitioner.

A man about middle age, was brought to the hospital on Friday, December 9th, in a semi-conscious state. He was able to sit in a chair, and when questioned in a loud tone he tried to answer—pronouncing the words, lub, rub, dub.—Nothing more intelligent could be obtained from him. Both pupils were contracted, and were unaffected by light.

His pulse was slow, about 60, and the respirations slower than normal. He had a wound on the head over the parietal eminence, one inch and a half long, running from before backwards. The wound was suppurating, and the lips could be readily opened, showing a fracture with depression of the skull.

Both hands were badly burnt and the left elbow and arm slightly. Four of the fingers of the right hand were charred to the bone, exposing the phalanges. The left hand was not so seriously burned. He was put to bed, and applications made to the injured parts.

For several days he continued partially conscious. He seemed to hear better, but his speech did not improve. On the 15th he showed some convulsive movements of the right side with increased stupor. The latter symptom increased, and on the 19th I could not arouse him or elicit any response whatever. I determined to trephine and remove the depressed bone at once.

Choloform was administered, and assisted by Drs. De Roaldes and Levy, and Mr. E. Clarke, the student of the ward. I made a free opening in the scalp by extending the existing wound and making a transverse incision at the lower edge of the wound in the middle, raised the pericranium with the flaps and exposed the fracture. It was found to be two inches in length, of a crescent shape, and about 1¼ inches broad, the straight edge being depressed beneath the inner table of the skull.

It was comminuted, and could be removed with the elevator without the use of the trephine.

With the elevator I removed all the external table, and between it and the internal table, found fragments of black felt, from the hat, and hair. I next removed the internal table; some pieces, one especially, was driven half an inch under the sound bone. The dura mater was not wounded, nor showed any evidence of injury. Some pieces of the internal table were in a state of necrosis.

The wound was brought together by three sutures and a dressing of absorbent cotton, and a flannel bandage applied. After the operation he said he felt relieved, that the pain he had felt in the head was gone, and gave a clear account of the way in which he had received his injuries, using the word "club," which he could not pronounce before. He told us his name was Charles Dalton, a native of England, aged 40 years. He came down the river from Arkansas City, and went to work on a levee about three miles above Bayou Sara, where he remained nine days.

Left there Tuesday, the 6th of December, at 12 M., and started down the road to find better employment. About 5 P. M., he reached Waterloo, six miles below Bayou Sara. Having looked for lodgings without success, he and a co-laborer were compelled to buid a fire by the road side, and prepare to sleep for the night. At 7 P. M. his comrade laid down on the opposite side of the fire, while he remained sitting, leaning his head on his knees. About this time two men came up, one armed with a club. When they approached, he turned around,

whereupon he was struck a severe blow on the head, knocking him senseless into the fire. How he managed to get out of the fire he does not know.

When he came to, it was daylight, his partner had gone, he was conscious, but could neither hear nor speak. Fearing another attack from the same parties, who he supposes were owners of the wood burned, he took a bundle containing some clothes, and placing it under his arm, started back to his old place, three miles above Bayou Sara.

After travelling a mile or more, staggering like a drunken man, he fell and found it very difficult to rise, rolling over and over. In his efforts at last he succeeded, and continued his journey. While lying and endeavoring to rise a man passed by in a cart, he tried to call to him for help, but could not speak.

He reached his camp at about 12 M., and a physician was sent for. His head and hands, which were badly burned, were dressed. On Thursday, at 7 P. M., he was put on a boat and sent to New Orleans. He walked from the camp to the boat, a distance of about 200 yards. On board he laid on a bale of cotton, and arrived in the city at 2 o'clock P. M., Friday, December 9. After waiting at the police station one hour, he was sent to the Charity Hospital.

His temperature averaged during 20 days after operation 98½°, only twice rising to 104-5°, on the 7th and 11th days, his pulse from 78 to 80.

His convalescence was rapid--2 weeks after, I removed another small piece of bone and the wound closed completely.

It is now healed; bony structure, slightly depressed, is all that can be felt in the place of the wound. The bones extracted, when dry, were found to weigh 110 grains, and numbered some dozen or more pieces, one being as large as a silver quarter, and composed of both tables. On April 14th, I amputated the fingers of right hand at the metacarpal articulation, leaving the thumb. This wound is nearly healed, and he will soon be able to leave the hospital in good health.

CORRESPONDENCE.

194 Camp Street,
NEW ORLEANS, May 18, 1882.

DR. W. H. WATKINS:

Dear Doctor—I enclose a letter I received from Messrs. Calvert & Co., of Manchester, England. Dr. Déclat, in his address before the Medical and Surgical Association of New Orleans, made such extraordinary statements, that I thought it due to the profession of this city to forward some of his assertions to Messrs. Calvert, the original manufacturers of pure carbolic acid. Their letter is a complete refutation of his claims as to the discovery of the means of making pure carbolic acid, and also as to his being the pioneer of its employment in disease.

Runge in 1834 established the claims of carbolic acid as a disinfectant. Mr. Crace Calvert used it in 1851, and Lemaire employed it on a large scale at about the same time. In 1865 Dr. Angus Smith and Mr. Crookes used it largely both internally and externally with success, in the prevention and cure of the cattle-plague in England. In 1864 Dr. Wolfe, of Aberdeen, used it as a dressing for wounds, and it was in 1867 that Mr. Lister first made known his method of employing it in what is now called the "antiseptic system." I, myself, employed largely as early as 1863, and in looking through the long list of names of those who have used it (in a work published in 1871), I fail to find the name of Dr. Déclat. The letter is at your service, should you deem it worthy of publication. I would mention that I heartily endorse all that Dr. Déclat has said with regard to the benefit to be derived from the use of carbolic acid in the treatment of all zymotic diseases, this from my own personal experience long before I had ever heard of the existence of the learned doctor. In the yellow fever epidemic of 1867 I made large use of it and have found it highly beneficial in the treatment of small-pox and scarlet fever. I remain, dear doctor,

Yours faithfully,

I. L. CRAWCOUR, M. D.

MANCHESTER, April 4th, 1882.

I. L. CRAWCOUR, ESQ., M. D., 194 Camp street, New Orleans :

Sir—We have before us your favor of March 16th, and in reply we have to say that our No. 1 carbolic acid (fusing at 108 F.) is absolutely pure and free from cresylic acid. If Dr. Déclat stated at a public lecture that 1 kilo of our No. 1 acid contains only 6 oz. pure phenic or carbolic acid, his statement is ridiculously untrue, and he either betrays his own ignorance of the chemistry of the subject or appears disposed to abuse that of his audience. Prior to the first introduction and recommendation by the late Dr. Crace Calvert of our absolutely pure No. 1 carbolic acid for antiseptic or antizymotic uses internally, such a pure acid from coal tar was quite unknown either to medical men, pharmaceutists or to science generally, neither had even Dr. Déclat ever seen a specimen. Strictly speaking pure carbolic acid like all other organic matters will with time and exposure undergo a certain amount of molecular change, but under ordinary circumstances this is so slight even after the lapse of years as in no appreciable degree to affect its utility for antiseptic purposes. The term "nascent" as applied to pure carbolic acid, or any of its preparations, has *no scientific meaning*, as carbolic acid can only be described as "nascent" at the moment when the tar oils containing it are evolved in the distillation of coal or other matters. Dr. Déclat's earliest publications on the subject of the antiseptic properties of carbolic acid are, by years, antedated by those of Dr. Crace Calvert and other scientific men, and he therefore has no claim either as discoverer or inventor of the product itself or its applicability for the purposes mentioned.

Yours truly, F. C. CALVERT & CO.

SAN FRANCISCO, CAL., April 27, 1882.

My dear New Orleans Medical and Surgical Society :

As you have been kind enough to have continued me on your roll of corresponding members, in spite of my years of neglect, I will endeavor to be in future an active, though absent member. One of the most pleasant incidents of my short visit

to New Orleans was my visit to your society meeting, and let me assure you that, although California is rich, and full of active, intelligent and bright medical men, and the climate is favorable for mental and physical activity, yet with its dozen medical societies, it does not contain one which will compare with yours, in usefulness to its members and interest to its visitors—its interest to its members is sufficiently shown by the regular large attendance. The flourishing state of your society was the only thing satisfactory I saw in my old home. There are four regular medical societies in San Francisco, which draw their numbers from the 400 regular physicians; the largest being the S. F. Medical Society, with a membership of ninety, and a regular attendance of ten or twelve. It is conducted on the system of voluntary, and therefore irregular presentations of papers.

I was glad to get back to my business, and to the cool breezes of San Francisco on April 4th, where I found a temperature of about 57° F. indoors during the day, this has gradually increased until the average is now 63° F., with about 5° less during the night. The summer heat of San Francisco exceeds 65° F. on not more than four days in a season, and this uniformly cool air gives rise to a far different class of diseases than is met with in New Orleans. It is pleasant to the feelings; produces a low annual mortality, but I do not think that delicate and sickly persons have as much comfort here as in places where there is a more decided change of seasons; but to compensate for this, you can get from May to October, by going less than 100 miles from San Francisco, any kind of a climate you desire.

Malaria, which with you may be considered to be a factor in most cases of sicknes, I consider never arises in San Francisco, and is only seen in persons who have recently lived in some of the low river bottoms, or valleys of the interior. When such persons with their systems saturated with malaria come to San Francisco they usually get well with little treatment.

Diseases of the respiratory mucus membrane are most frequent, severe and lasting. An acute coriza is very apt to be-

come a chronic nasal catarrh. This disease rarely gets well here unless the subject can get away to some of the hot interior valleys, where the thermometer stands all summer from 70 to 110° F. in the day time. A slight bronchitis of the larger divisions of the trachea, which with you usually gets well in a week without treatment, and never outlasts the beginning of hot weather, seldom gets well here under two months. A very few repetitions of bronchitis in a year easily lead into chronic bronchitis, which seldom gets entirely well except by change of climate. It is very troublesome, but rarely fatal, and then only after years of duration, it passes into asthmatic bronchitis, emphysema, dilatation of the right heart and all the sequences of heart diseases. The most effective treatment for cases of moderate severity, where the patient is not confined to the house, is strong counter-irritation over the back and front of chest; for which purpose I prefer frictions of croton oil, pure and diluted. Nauseating expectorants do harm, and are not much used. Where it is requisite to give some narcotic to allay the irritative cough, I use morphia or cannabis indica. Of this last I would say that it is one of the most valuable narcotics to allay harrassing cough; although it is not so certain as morphia, yet as it can be given a long time, without constipating the bowels or interfering with digestion, this makes it especially valuable. I use the tincture mixed in mucilage and syrup, or the extract in pills with quinia. A number of diseases which are common in New Orleans, are rarely or never seen here. No case of hydrophobia has ever occurred on this coast. Tetanus and trismus nascentium are rare. There is very little cholera infantum, and typhoid fever, though frequent, is mild. Aneurism, pneumonia, heart diseases, meningitis, cause each a larger proportionate mortality than in Southern or Eastern cities.

Hoping that your society will excuse me for this long letter, and with the deepest interest for your continuance,

I am yours,

Very truly,

ALFRED W. PERRY, M. D.

Current Medical Literature.

TRANSLATIONS.

NOTES ON LEPROSY.

Extracts from the Report of the Work at the Hospital at Lungegaard, Norway, 1877–79.

Dr. D. C. Danielsen.

Translated by Judge Abe Fornander, Lalvaina, Hawaian Islands.

1877.—In this year there were 56 lepers, of which 21 had been newly admitted. Of the tubercular variety there were 22, of the anæsthetic 29, and 5 were mixed cases.

Twelve (12) left—1 cured, 1 improved, 8 stationary and 2 died.

1878.—There were 58 lepers this year—44 remaining from last year, and 14 new cases. Of these 44 old cases 16 were tubercular, 23 anæsthetic, and 5 mixed. Of the 14 new cases 8 were tubercular, and 6 anæsthetic. There left the hospital 17 cases—4 cured, 2 improved, 9 stationary, 2 died. Of the 9 stationary cases 1 went to another hospital, 1 ran away and 7 left voluntarily.

1879.—There were 56 lepers, of which 14 were new comers and 44 left over from 1878. Of the new cases 4 were tubercular, 9 anæsthetic, and 1 mixed. During the year 10 left—2 cured, 1 improved, 6 uncured and 1 died. The 6 uncured cases left voluntarily.

PLEIE DEPARTMENT.

1877.—In this department during this year there were 21 cases; 14 remaining from 1876. Of the 21 cases, 7 were tubercular, 9 anæsthetic, and 5 mixed. One (1) left uncured, 2 died.

1878.—There were 28 cases, 18 from last year. Of the tubercular variety, 9; anæsthetic, 11; and mixed, 5. Nine left, 3 uncured, 6 died.

1879.—There were 21 cases in all—19 from 1878, 6 tubercular, 11 anæsthetic, and 4 mixed. Four (4) left, 2 voluntarily, 2 died.

During the three years, 22 lepers were under continuous treatment; of these 7 were cured and 4 improved. The 7 cured were all of the anæsthetic form; of the 4 improved, 3 were anæsthetic, and 1 tubercular. Those discharged improved from the Hospital were such as were so far on the road to health as to stand every chance of becoming cured if they followed out

the line of treatment advised. Many of the uncured were admitted in stages too advanced to be amenable to treatment.

Treatment. — Of the new medicines used during the three years 1877-1879, salicylic acid, salicylate of soda and hoang nan were the most interesting. The last is a so-called specific sent to Dr. Hansen by a priest in Trinidad.

In my report for '71-73 mention was made of the use of carbolic acid and its results which were not satisfactory. I was led to the use of carbolic acid because of the conviction that the bacteria found under the microscope in the blood of the patients were the cause of the disease. But similar organisms are found to be not more frequent in the blood of lepers than in healthy blood. Dr. Hansen found by microscopic investigation aggregations of large brown cells which were thought to be the cause of the disease. I have since modified my opinion so far as to consider these cells the result of the morbid changes occurring in the disease and not the exciting cause of leprosy. Hence it is that I gave up the use of carbolic acid and have taken to salicylate and salicylic acid.

This latter drug is used alike in both the tubercular and anæsthetic forms, and generally in the following manner:

℞. Salicylic acid.....grams 4
Water..... } " 125
Rectified spirits..... }

Mix and take tablespoonful 3 to 4 times daily. A continued use of this, however, sometimes produced albuminuria and salicylate of soda was substituted for it in one gramme doses dissolved in water 4 times daily; this produced no renal irritation. Carbolic acid caused eruptions and a consequent fever, and when increased to ½ gram doses gastritis. Salicylate soda has less effect upon the tubercular form of the disease than the anæsthetic, but it reduces the eruptions and the consequent fever. When used in the anæsthetic variety it reduces the blotches and has other good effects.

Jaborandi was also used, but beyond producing very free diaphoresis had no satisfactory effect.

Hoang nan was also tried, but furnished no results. Father Etienne, who furnished this drug, speaks very highly of it in his pamphlet on leprosy. In the same book he favors the theory of contagion. I do not believe in it (contagion) at all, but hold to the heriditary character or origin of the malady, of which many examples may be furnished; especially is this so of the anæsthetic form which is only lately well-recognized, and whose former history is therefore more obscure. In the Western Islands the lepers were allowed perfect freedom of actions save that of marriage, yet leprosy has almost died out. So in Iceland there is very little left. Syphilis and leprosy have been, and still are, often confounded; hence, one reason for the strong faith in contagion, and probably also for the

reputation of hoang nan. [Dr. Eklund, who had gone to the hospital to study the disease, also strongly believes in the contagious character of leprosy, but after agreeing with Dr. Danielsen that the period of incubation is about *one* year, goes on to cite cases in which the interval between contact with a leper, and the breaking out of the disease was in some cases as much as ten (10) years. Dr. Danielsen also intimates that in *some* of the cases at least, careful inquiry might have shown a history of leprosy in a former generation.]

Elizabeth Eide, 24 years, unmarried, entered August 24th, 1874. Nothing abnormal about skin except being pale, and in certain parts of the face loose and flabby. She is sickly; difficulty in shutting the eyes, especially the left; no ectropion; slight diminution of sensibility in left orbicular region. Disease began 2 years ago with general malaise and headaches; was in bed 8 days, during which red spots broke out on lower extremities, and sharp pains occurred in face with some paralytic trouble with eye-lids and lips which remains; since then is better, but never free from pain. Menstruation is regular. No cause is assigned. We give one steam-bath weekly, and induction electricity used upon muscles.

November 10th—Muscles react to the electricity.

February 24th, 1875—Paralysis about the same. There is some pain in the face for which decation salve was ordered.

February 28th—Red papules have appeared on her legs; they are of various sizes, tender and accompanied with fever. The salicylic acid and mixture was prescribed.

March 5th—More red confluent blotches.

March 8th—Blotches elevated, tender, of an intense red-brown color and more confluent.

March 15th—Not so much elevated and pale; skin has a marbled appearance; hyperæsthesia still continues but fever has disappeared.

March 16th—Great hyperæsthsia of legs; blotches on thighs almost gone. Three cups to each leg daily.

March 21st—Blotches very much less on legs, but a pale color and sensitivness left.

April 12th—Blotches almost gone.

May 10th—Nearly over now; salicylic acid stopped.

October, 1875—Been quite well all the summer, but lately slight itching of face, forwarning a return of the blotches. Prescribed 4 cups to neck and the salicylic acid again.

February, 1876—Discontinued salicylic acid. Now well, no blotches, no anæsthesia, occasionally slight twitching of the eye. Weekly steam baths, and in summer sea baths were used, and even 4 cups on her neck.

September 30th—No signs of any trouble for a long time. Still continued baths. She is fat and well, save an occasional twitching of the eyes.

October 8th—Dismissed cured.

Iver Samson, 45 years old, admitted May 3, 1877. Strong, well built man, partly bald, eye brows normal, face dusky, red brown color, cheeks show dark hardened blotches. Skin of body covered with blotches from size of a half dollar to that of your hand; they are slightly elevated with even defined edges, brown in color but pale in centre. Similar blotches upon upper and lower extremities. Under the right is a large ulcer; slight anasthesia of skin of the feet, but not of hands. Neck and its glands swollen. Disease began one year ago, with blotches which were more deeply colored than now. Ulcer appeared on his heel in July, 1876, in the form of a blister, which burst and left this ulcer. Married and has 3 healthy children. No family history. No association with lepers. He assigns as the cause severe frost and hard labor.

Treatment—Weekly steam baths, confinement to bed, salicylic acid 5-100, rectified spirits and water.

May 16th—Sore under heel granulating and contracting.

June 17th—Sore healed, 4 to 6 cups every 14th day to trunk and extremities.

June 15th—Sore returned; chlorine wash.

June 30th----Sore healed; blotches paler.

September 7th—Scar on heel opened; keeps his bed; blotches much paler.

October 26th—Sore healed; blotches almost gone.

January, 1878—Very well; symptoms are gone. Sensation of feet not so sharp as before; he was taken sick, but much better.

June 20—Discharged cured.

Sarah Ostens, 30 years old, entered 26th April, 1878. Transferred from the common hospital in Bergen. Symptoms —parts of the eyebrows, the cheeks of the face, and the nose were marked by strong red-brown elevated blotches; also on the flat sides of the arms and thighs, though not so well defined or prominent as the former, but more irregular, confluent and discolored. The patient is feverish and complains of fearful pains in the feet. No swelling of glands or nerves. No leprosy in the family exccept a neice (or nephew). Applications of oil and fat in which to wrap the feet; hypodermic injections of morphine; internally, salicylate soda in solution.

May 2d—Eruptions everywhere retreating nicely. No more pains in the feet. Stopped morphine injections and oil bandages.

May 9th—Blotches on feet in great measure gone, but complains of feeling of soreness when she attempts to walk on her feet.

May 12th—Is out of bed to-day. Warm baths.

June 2d—No more blotches to be seen. Stopped the salicylate soda. Weekly warm baths still used.

June 20th—A small eruption of blotches reappeared upon the face and extremities. Renewed salicylate soda.

July 15th—Blotches greatly diminished.

August 27th—Marks of blotches to be seen only on the face —otherwise all gone.

March 5th—She says that now and then there occurs an eruption of blotches which only last a few days. To-day there was such an eruption of small pale-red, but not elevated, blotches, somewhat similar to those in an anæsthetic form. Gave salicylate soda.

March 8th—Blotches gone without leaving marks.

July 1st—No blotches have shown since March 5th. Patient is well; dismissed as cured.

Knud Madsen, 13 years old, entered March 12, 1878. Over the face were seen a great many isolated prominent tubercles about the size of peas, over which the skin was discolored a blue-red. The upper eye-lashes were falling out. Over the upper and lower extremities and on the nates were spread out intensely brown-red, irregular, confluent, strongly infiltrated and elevated patches (broad blotches) on which the skin was scaling off. Between these quite a number of smaller blotches, tubercles and tubercular infiltrations are strongly discolored. No anæsthesia or swelling of the nerves. Lower part of the eyes somewhat drawn up. Except in one or two places on the back the trunk of the body is clean. Patient says the disease commenced about 14 days ago with being generally unwell. No leper in the family. No communication with lepers. He keeps to bed.

℞. Salicylate soda, 15–250; one tablespoonful 4 times daily: tepid warm baths.

April 28th—He is now well enough to stand up. Tubercular infiltration diminished and the color less intense.

June 12th—The infiltration everywhere paler and diminishing. In the face the tubercles have almost gone, but have left sort of brownish spots where they had been.

Sept. 11th—Blotches and tubercles disappear more and more. The larger patches in the thigh much paler and not elevated.

May 21st, 1879—In many places tubercles and tubercular infiltration are entirely gone. In other places only brown spots may be seen where the tubercles had been. The patient is otherwise in good health. At the request of patient's mother he is dismissed as under improvement.

HOW TO EXAMINE A SICK CHILD.

(*Journal de Médcine de Paris.*)

Translated by R. MATAS, M. D.

Dr. Decroizilles inaugurated his course of pædiatry, at the children's hospital, by indicating the method to be followed in the examination of sick infants for the proper detection of disease.

We summarize:

If we are dealing with the newborn infant great advantage will be derived from an examination during sleep. If proper care is taken not to waken the slumberer, an opportunity is offered to us for the favorable observation of the physiognomy, attitude, respiration and pulse. If awake, we should notice any peculiarity about its cry, the manner in which it takes the breast; we should closely examine its jaws to determine the existence of any abnormalities of conformation, and if the lips are able to suck the examiner's finger well.

After these brief observations are made, the babe should be stripped and all the regions of its body should be successively submitted to inspection.

The normal attitude of the new born infant is that of flexion with the head dropped upon the breast; towards the end of the second month the head is maintained elevated; in the fourth or fifth the infant easily sits up; about the eighth or ninth it begins to support itself upon its feet, and, finally, at about the termination of the fourteenth or fifteenth months it attempts to walk.

The cutaneous surface, which is usually very red during the first few days, may assume a yellow icteroid tinge on the third or fourth day. It does not attain its definite color till the fourth month.

To examine the grown up infant is a more difficult matter. It becomes necessary sometimes to recur to forcible measures, but these should always be practiced with gentleness.

The examination in such cases should begin as before by divesting the little patient of all his garments in order that an exact "inventory" may be taken of his body.

The wrappings which envelope the child should be minutely examined, so that the nature of the alvine discharges and the character of the urinary secretion be properly ascertained. If the diaper is not damp with urine, a slight pressure over the hypogastrium will usually suffice to cause the discharge of a certain quantity of this fluid.

As the infantile pulse is usually very rapid, the thermometer should be used regularly to recognize the presence of fever.

The facies of infants is a matter of great importance in the study and diagnosis of their diseases. The healthy babe's face is usually calm and placid; it becomes contracted and corrugated upon the advent of pain; choleraic disorders will cause a peculiar pinching of the facies and a characteristic drawing down of the oral angles; whilst pneumonia will tinge the cheeks with a circumscribed blush.

Once the existence of fever is recognized, an examination of the throat should never be neglected. To inspect an infant's throat is not always an easy matter, as most practitioners know. The child should be held firmly in the arms of some strong person in order that it may be rendered as passive as possible: the nose should be gently pinched between the

thumb and index, in order to force it to open its mouth, then the introduction of the tongue depressor will become an easy measure.

Auscultation should always be practiced directly with the ear over the chest. The vesicular murmur in a child is always more intense than in the adult; and on a level with the great bronchial trunks, over the spine and scapular regions, it is remarkably reinforced, so that it assumes a rude and almost bronchial character.

The heart's sounds are louder and clearer than in the adult. Their maximum intensity is heard only over one place: the third intercostal space, to the left.

In the infant, percussion should succeed auscultation.

The pulmonary resonance extends, posteriorly, to the twelfth dorsal vertebræ; on the right to the tenth and eleventh only; in front and to the left it extends to the fourth or fifth rib, and on the right side to the third only.

ON TRICHINÆ IN SALTED MEATS.

By Mr. G. Colin, Professor at the Veterinary School of Alfort, France. From *Comptes Rendus de l'Academie des Sciences*, March 27th, 1882.

[Translated by Dr. G. Devron.]

The object of this paper is to ascertain the time in which trichinæ die from the action of salt, in the various preparations which swine flesh has to undergo to secure its preservation and delivery to commerce; consequently to determine the conditions in which these salted meats can be consumed without danger. My observations and experiments were made upon whole animals which had contracted trichinosis by the ingestion of trichinous meats, and partly upon salted meats of American origin, which are imported in large quantities since a few years in nearly all parts of the world.

I proceeded as follows with animals suffering with trichinosis: After having produced upon hogs the disease in a high degree of intensity, observed its symptoms and its terminations, then ascertained by harpooning the dissemination of the worm in the muscles, and the formation of the cysts, I slaughtered those hogs and had them cut up in the usual forms. The fat, the shoulders and the hams were salted partly dry, partly in brine; the lean portions were manufactured into sausages of various sizes. After weeks and months I examined those preparations under the microscope, and distributed certain portions to animals in which trichinæ could undergo intestinal and muscular evolution. One of the hogs which had contracted the disease by eating only a quarter of a trichinous rat, was prepared in a brine composed of three parts of water for one of salt, and sausages were made of its muscles containing two, three, four, five per cent. of salt.

After eight, ten and twelve days immersion in the brine, the fat preserved all its trichinæ alive; they unrolled in the intestines of various birds, and showed their sexes as rapidly as if they came from fresh muscles. But from the fifteenth day of immersion of the fat in the brine they were dead in the superficial portions to a depth of 0.03 m. Likewise at 0.05 m. in the muscles in contact with the tibia and the femur. Therefore the sparrows and the rats which ate the lean flesh of these superficial parts show no living trichinæ in their intestines. However, after two weeks the deep portions of a larger ham contained a large number of these nematodes alive. They were all dead by the end of the second month.

In preparations made with chopped meat, salted two per cent., which is a very weak proportion that does not secure a long preservation, there remained no more living trichinæ at the end of the second or beginning of the third week. All these trichinæ had died. Likewise in the chopped meats containing the four or five per cent. of salt and a few hundredths of pepper. The death of the worms necessarily occurred with a rapidity proportionate to the quantity of salt contained in the preparations. The prepared meat of other animals gave almost similar results. But in large pieces which did not absorb well the salt during the great summer heat, the trichinæ were entirely killed only at the end of six weeks or two months. Not a single living one could be found in the middle of a large hog slaughtered before the seige of Paris and examined the following April.

In the experiments made to ascertain the death or vitality of the trichinæ, no doubt could exist as to the result obtained, for the samples of meat were always given to the little test animals in two forms: one part just as it was found in the center of the salted meat, and another part after having been soaked in tepid water twelve to eighteen hours, that it might lose a portion of its salt, the irritating properties of which might have interfered more or less with the evolution of the worm in the digestive tube.

American salted meats, bacon, hams, shoulders and steaks, which I could examine shortly after their arrival and seizure in France, presented no other than dead trichinæ. Their trichinous cysts had very often a perfect appearance, being regular and well defined. Samples taken from the center of pieces seized at Lyons, Paris and Bordeaux were swallowed by a number of sparrows, mice, rats and rabbits, and yet in the intestines of those small animals no trichina unrolled itself after the dissolution of its envelope, nor did any show any movement. All those meats showed only trichinæ dead for some time; they could have been used for food without any inconvenience.

In order to make sure that no living trichinæ escaped my detection, I gave pieces of bacon, ham and of steaks to rats,

to rabbits and to a hog, which were watched carefully one or two months and even more before being slaughtered. None of the animals of this second series experienced any digestive trouble or any indisposition due to trichinosis. Harpooned in the thigh at the end of one month, the muscles showed no trichinous cysts and no trichinæ undergoing inclusion. Slaughtered after two or four months and examined carefully, no traces of trichinæ or cysts could be found in the muscles of the various parts of the body. All these results agree with those of my former experiments, and furthermore with those of more recent researches by Mr. Corradi of Paris, and with the facts registered in the Laboratory of the High Studies under the direction of MM. Ch. Robin and G. Pouchet.

American salted meats in their condition and the delay before they reach us, do not seem, therefore, to be apt to transmit trichinosis, even if they were eaten raw or imperfectly cooked. Nevertheless, it is possible that sometimes, in very fresh lots, in pieces of a large volume, or poorly impregnated with salt, a few living worms may remain. Therefore, to guard against a danger certainly rare and not serious, it would be prudent to still supervise the salted meats, if the prohibitory measures which affect them were withdrawn.

COLONY TREATMENT OF THE INSANE—A VISIT TO FITZ-JAMES, AT CLERMONT, IN FRANCE.

Abstract of remarks made at the annual conference of members of the State Charities Aid Association.

No one can doubt, after listening to the able letter written by Mrs. Lockwood and read by our chairman, that occupation, exercise, amusement, light, air, and space, are most important desiderata in the treatment of our insane; one does not need to appeal to any further authorities than those already given on these points. But Dr. Potter has, I fear, rather magnified the scope of the few remarks which I stated I would make, when he says that I shall refer to a considerable number of asylums. I had particularly in my mind only a few points relating to two special institutions, which I took care to visit this summer while in Europe, because I thought they would be extremely instructive to Americans who are interested in treating the insane—instructive on these very points of occupation, labor, amusement, light, air, and space; and these institutions are, indeed, very suggestive in holding up a contrast to our own methods—how strong a contrast I shall call attention to, simply by comparing facts gained from my visits with facts gained from personal observation of some of our own asylums, and statistics culled from their reports, a few of which I have in my hand.

The easiest way to place before the conference the great and reasonable amount of liberty with which insane patients can

be treated, and the amount of work which they will willingly perform, is to take a bird's-eye view, so to speak, of these two famous institutions I have alluded to—I refer to the colony of Gheel, in Belgium; and, secondly, to Fitz-James, at Clermont in France.

Visit to Fitz-James.—I went to Fitz-James a few weeks after visiting Gheel. And here I may say at once—though I know there are violent sides taken in the whole matter of the comparative merits of the colony system and the close asylum system—I may say that I believe Fitz-James to be a most splendid example of what may be termed the segregation or separation system of treating the insane, and of the curative effects produced by labor and occupation.

On the day of my visit, there were 1,000 patients in the colony—and here the word colony may be appropriately used, for Fitz-James consists essentially of two main portions, a central asylum and some immense farms, lying about a mile away. The central asylum corresponds in certain main characteristics to any other close asylum. It is its association with outlying farms that gives Fitz-James its special distinctive features, and in the use that is made of these farms. The farms themselves consist of about 1,500 acres of the most cultivable and excellent land. An omnibus service goes back and forth between the asylum and the farms, conveying outward the insane who are willing and able to work, and bringing in those who are tired and wish to return. Comfortable lodgings are provided for those who are out at work. And here I may note in passing, that no threat more effective in inducing a refractory patient to obedience can be found than telling him that he will be taken back to the central asylum. There are no exceptions to the classes of patients received at Fitz-James. As far as the quality of patients is concerned, Fitz-James is exactly like the institutions on Blackwell's and Ward's islands. The comparison that I must soon institute must, therefore, in this instance, be an extremely fair one. The main characteristic of the central asylum was a number of large and roomy court-yards in which were trees, walls, grass plots, plants and benches. These court yards, of which there were six, communicated directly with the sleeping apartments. I recall very nearly the numbers who occupied these courts or their connecting wards. In the first there were fifty patients who were old, feeble, convalescent, or desiring to escape; in the second, 45 on trial before going out to the farms; in the third, 50 epileptics; in the fourth, which was the infirmary, there were also 50 sick; in the fifth, 46 who were "dirty;" in the sixth, 10 who were "excited,"—in all 251 out of about 850 men who were at the central asylum. Now this is what astonished me, the remaining 600 were out at work; how enormous this ratio compared with our own similar institutions we shall soon

see. Another 150 patients, making up the full thousand, were women, subject to the same classification as above.

I saw no form of restraint anywhere in the whole asylum, except bars on the second-story windows of the part used for a hospital. The reason given for this conspicuous lack of restraint was, that nearly all the patients, being at work, were extremely docile and did not require restraint. I never saw patients so quiet, calm and interested in their pursuits as in this asylum.

An interesting feature of the central department is the so-called "trial garden," a large tract of cultivated ground, where the patient about to be trusted on the large farms is first tested, to see if it will do to send him out.

I next went to the farms and took a note of the condition of affairs; I regret that time will allow me to present, in the briefest manner, a few only of the most salient points. The farms are two in number, large and adjoining, comprising 1,500 acres, and named respectively Fitz-James and Villers. Fitz-James has three departments; first, for men, both paupers and paying; second, for pauper women; and third for paying women. Of the men and women who paid, little need be said; the average price was $50 per month; their quarters were pleasing; each, as a rule, had his or her own servant, and wandered about the farms and gardens pretty much at will. But the work and occupation of the pauper men were more interesting. I traversed fertile fields, where the crops were being harvested; haystacks and piles of potatoes and other root vegetables gave evidence of the fertility of the soil, while approved and modern tools showed the practical farmer. The patients worked in gangs of from 20 to 30 men, each with an associate attendant. In all 167 were employed here. In the stables were 40 horses, in the sheepfold, 1,800 sheep; there were also 200 cows, 80 pigs and 400 hares. All this I mention, not alone to show that there was room for labor for all, but to point out also, at the same time, the self-sustaining character of this colony. Near by was a blacksmith's shop in which the insane were employed, a mill and a butchery.

But the most interesting of all, perhaps, was the second department—that devoted to the labors of 150 insane women.

A pretty little stream came down through the trees from the neighboring hills, and over a section of this stream was built the laundry; near by was a dining hall and domitory, with 150 plates set along the tables in the lower halls, and as many beds on the second floor. In the laundry is done all the washing of the entire institution. Here were washing machines, drying machines and a steam engine of ten horse power, whose engineer was a woman attendant. and whose *fireman* was an insane woman. Along the edges of the stream, as it passed through the building, were arranged, in double and facing rows, fifty patients engaged in washing clothing; they

were happy, industrious and interested; if they didn't want to work, they were at liberty to return to the central asylum. Other women were busy in the drying room, and still others were ironing and folding. And to direct and manage these 150 women there were simply one chief directress and eight sane employes.

The second farm, Villers, resembled in most respects the first, except that it was more exclusively devoted to agricultural field labor. Here most of the kitchen vegetables of the institution were raised; nothing is sold, but all is consumed by the colony; 130 patients were employed, with fifteen guardians of head workmen; here there were 600 sheep, 32 oxen, and 15 horses. The dormitories were comfortable, and the patients apparently contented.

Each farm has its head agriculturist, who in turn is responsible to Monsieur Labitte, the brother of the medical superintendent.

Here again, then, we find, as at Gheel, an administrative distinct from a medical service.

But I am passing, I am sure, far beyond the time allotted to me. Your attention to these details must be my apology.

It only remains to contrast the two institutions of which I have spoken with some of our own in regard to this point of occupation for the insane.

The Government Asylum at Washington is as good as any for this purpose. According to this report in 1879, out of a total of 819 patients, 50 were trusted to take part in some occupation. I visited the hospital in April last, and then, out of a total of 873 patients, 127 were at work outside the building. Here a beginning has been made in the right direction; the government made a small appropriation for temporary buildings, and fifty selected patients were placed in them, with doors and windows unfastened. "The result," says W. W. Godding, the able superintendent, "has more than justified our expectations." And now Congress has appropriated $30,000, which is being expended in erecting another building, of the open-door-and-window type, where manifold avocations will be furnished to patients willing and glad to employ their time in this manner.

At Ward's Island, in 1874, there were 673 patients, of whom 40 were sent out of doors. In 1877 no mention at all is made of employment. I can only find that certain squads were taken out at pleasant days. In the next year's report (1878) we are told that in the previous year there were 83 employed in various kinds of labor outside the wards, and that in 1878, out of nearly a thousand patients there were 125 employed. Contrast this with the 600 out of 850 employed at Fitz-James; or contrast the penned up female insane of Blackwell's Island with the busy laundry on the same farm.

The best example of the colony system to be found in our

own country is the Williard Asylum for the chronic insane poor, at Ovid, N. Y., under the intelligent control of Dr. John B Chapin. Here exist great farms, and extensive and organized labor, occupation, and amusement; in short, a humane method of treatment that will compare favorably with the best colony systems abroad. This institution should be well studied in connection with Gheel and Fitz-James.

But I do not wish to criticise our institutions. I must, however, confess, in closing my remarks, that in studying Gheel and Fitz James, I have been astonished at the industry of the insane and at the large liberty which may be safely and reasonably granted them. Of the curative power of this industry and liberty no one has any doubt, and I will not here delay to prove the point by an appeal to statistics. A single case, one of many taken from Dr. Peters' record, tells its own simple story:

"A patient named Mary V., No. 6,094, on the register, suffered from delirous melancholy. Energetic moral and other treatment, and the devoted attentions of the 'sisters' did not succeed in modifying her condition. She spent the day in lamentation, saw the preparations for the frightful punishment which she believed she would be obliged to suffer, and slept neither day nor night.

"She was entrusted to an intelligent and devoted nourricier, who lived on the farms, with instructions to exercise proper supervisions and kindness, to make her life as calm as possible, to provide proper occupation for her, and to look after the regularity of the excretions. Mary V. was scarcely installed in her new home before her condition modified favorably. Her delirium became somewhat less active. She mourned less, and soon took part in the household labor with the wife and daughters of her guardian. Her appetite became excellent, her sleep normal, and she increased in flesh. This improvement developed at the end of four months into a permanent cure. Before leaving the patient came to thank us, and when I congratulated her on her rapid and complete cure, she replied:

'I would never, I believe, have recovered at the infirmary. *The presence of the other patients fed my delirium and my unrest.* Assoon as I had entered into the calm and happy home of nourricier G. I felt my senses grow clearer and my heart encouraged.'"

It is true that Gheel is exceptional, but clearly the comparison with Fitz-James is a fair one. Gheel in its entirety is probably an ideal which can never be repeated by any other nation, for the simple reason that there is but one village of Gheel, removed from the world's traffic and turmoil, where the inhabitants, by reason of centuries of inheritance, have learned patience, tact, and fearlessness in their dealings with the insane.

But though the "Gheel idea," *i. e.* the "family system," consisting of a large number of families who would receive into their midst a thousand or more insane, may not be repeatable, the essence of their idea, *i. e.*, a large and reasonable liberty, healthful and sufficient employment, and accustomed and congenital surroundings, is repeatable, but not certainly in any of our great asylum buildings. Gheel teaches us the possibilities that exist in the treatment of our insane. It shows that the insane will work cheerfully if well managed; that they may be trusted, under proper precautions, with great liberty and not abuse it; and that, though in the highest degree intractable in restraint, with liberty they become docile.

In Gheel we find our suggestions. In Fitz-James we find these suggestions carried out with a degree of practical, organized, working perfection, which I believe both in its humane and its utilitarian aspects has yet to be equalled either at home or abroad.

Surely these institutions are worthy of our profound study.—William J. Morton, M. D., in *Journal of Nervous and Mental Diseases. Cincinnati Lancet and Clinic*, June 17.

THE BACILLUS OF TUBERCULOSIS.

The germ theory has received a new and powerful impetus by the recent discovery by Koch of the specific parasite of tubercle. The remarkable observations leading to its detection, and the experiments showing its infective property, were announced by Dr. Koch in a paper read before the Berlin Physiological Society, and which appeared in the *Berliner klinische Wochenschrift*, April 10, 1882.

This is not the first announcement of discovery, showing the infective nature of tubercle; since the suggestive but rather abortive experiments of Villemin, there have been numerous papers setting forth some supposed and a few actual facts throwing light on the self-propagating power of tuberculous matter. There have been announcements, indeed, of the discovery of the specific germ. Schüller had found in the tubercular material of strumous joint affections, a peculiar micrococus; Klebs had demonstrated in tubercle a bacillus which he held to be its specific germ; and Aufrecht had seen in tubercle-mass a minute organism of rods and granules, which to him possessed the same significance. But none of these observers had not only demonstrated the form, position, and characteristic of the new parasite, but had cultivated it in special culture fluids, and, what is still more conclusive, produced tuberculosis by the inoculation or implantation of the supposed infecting parasite. Such are the remarkable achievements of Koch.

The new parasite, as described by the discoverer in the paper above mentioned, is a very minute, rod-shaped body, in

its greatest length having dimensions one-half to one-fourth the diameter of the red blood globule. It resembles strongly in appearance and shape the *bacillus leprœ*. The parasites are found in greatest abundance wherever the tubercle process is going on with the highest activity, developing at the borders of the tubercle-granule and in the so-called giant cells. Koch gives a number of cases of tubercular diseases of various organs, in which he found the parasite maintaining a vigorous but motionless existence where the formation of tubercle was going on most actively. By a carefully devised method of staining, Koch is able to separate the parasite from the adjacent material. In his paper he gives full details of the process. He has, also, happily succeeded in his culture experiments. In a blood-serum gelatine fluid, maintained carefully at a temperature between 86° and 108° Fahr., at which only they will thrive, he was able to make them grow in the slow manner peculiar to them.

Now comes the crucial experiments. If this parasite be the specific infective material, it must, if the culture methods are not faulty, develop tuberculosis in those animals susceptible to the action, and proper hosts of tubercle. Koch carefully cultivated the parasites in the culture fluid kept in flasks at the proper temperature for several months, and then inoculated various animals, who without exception became tuberculous. Animals not readily susceptible to the action of tubercular matter in the ordinary state, as dogs and rats, were affected by the parasite actively, and suffered from tubercular disease in its typical manifestations. The infectious disease —*perlsucht*, in animals, corresponding to tuberculosis in man, it is interesting to note, contains the same parasite, capable of the same mode of cultivation, and producing the same morbid state by inoculation.

The evidence thus seems conclusive; it only remains to develop, from the cultivated parasite, tuberculosis in man to establish Koch's discovery amongst the great facts of medical science. Prof. Tyndall maintains the genuineness of these observations, and is fully alive to their transcendent importance. He calls attention to them in a letter to the *London Times*.

No one can fail to be profoundly impressed with the painstaking skill of the discoverer, and the far-reaching consequences of the discovery. In the facts laid before our readers may be the solution of the problem so long regarded as insoluble—the cure of tuberculosis. If Pasteur's culture experiments have led to the discovery of a method by which the poison of splenic fever is rendered harmless, and the disease prevented by the timely inoculation of the modified virus, may we not hope that the time is not distant when the ravages of consumption will be prevented by the inoculation of a modified bacillus? The medical profession of the whole civilized world will now await with the keenest interest the developments

which may be expected from the further study of the *bacillus tuberculosis.—Med. News*, April 29.

TREATMENT OF CONSUMPTION INDICATED BY THE DISCOVERIES OF KOCH AND OTHERS OF ITS PARASITIC ORIGIN.

By M. L. James, M. D., Professor of Materia Medica and Therapeutics in the Medica College of Virginia, Richmond.

The ranking of consumption among the zymotic diseases, which seems at least now to be proper, the next question is the remedy for it. Perhaps in time this may be secured, in the form of prophylaxis, by inoculating with germs of the disease of mitigated virulence, as in the case of vaccination for small-pox, and Pasteur's method for splenic fever. Pending its decision, no other subject of more pressing importance in Medicine or the political or social economy of our race can engage the attention of the profession than measures at once to lessen the destructive force of this, the deadliest disease of all that "flesh is heir to."

For many years the natural history of tuberculosis, and the therapeutic results which I have observed from the use of remedies of germicidal power, have excited in my mind suspicions of its zymotic nature. These suspicions have gradually grown upon me into strong and positive convictions, though I have not had the opportunity of detecting parasitic growth by microscopic observation. Four years ago, in a paper entitled "Consumption: the Question of its Curability and Treatment," which I had the honor to read before the Medical Society of Virginia, and which was published in its *Transactions*, I called attention to the prominence of the febrile phenomena of phthisis and to the salutary results of remedies addressed especially to that feature of the disease, citing several cases of distinctly defined phthisis which, chiefly under the use of such remedies, had secured periods of exemption from the disease ranging from one to nine years, and seemed in all respects to be cured.

Subsequent observations have so strengthened my convictions, that for the past three years my treatment of consumption has been almost exclusively confined to agents belonging to the anti-zymotic class, and in view of curative results I had secured, I had felt authorized to declare, as I did, to our classes in the Medical College of Virginia my belief that consumption was essentially a zymotic disease, and that its proper therapeutics is founded in such recognition.

Within the past thirteen years I have kept the record of twenty-three cases of phthisis of well marked diagnosis occurring in my private practice, which have been relieved of all constitutional symptoms and physical signs for periods ranging from eighteen months to now thirteen years, most of the subjects exhibiting as high a present degree of physical health

and strength as average persons in the community. All of the patients whose cases ended thus favorably fell under my charge in the first stage of the disease, and most of them with the earliest positive expressions, except two. In these two cases a cavity of the size of a walnut had occurred to one, and two smaller ones had occurred to the other.

Besides these twenty-three cases, one other seemed to be well for a period of nine years, who had a subsequent attack and died. It would seem to me, however, as illogical to conclude that this case was not cured, with all traces of the disease absent for so long a time, as to conclude that a person cured of malarial fever, who had at such an interval had a subsequent attack of malarial fever, was not cured in the first instance.

It is, perhaps, proper for me to say that I have kept the record of sixty-two other cases, treated at various stages of the disease, fifty-one of which have died, and the issue of eleven others is yet undecided, they still being under treatment.

My earlier successful cases were treated chiefly by quinine, carbolic acid in form of inhalation, glycerine and alcohol; by rest, pure air, timely exercise, and suitable food, all of which measures are, under varying circumstances, to a greater or less extent, anti-zymotic.

In addition to these remedies, in different conditions, I now also use salicylic acid, salacin, sulphur and its compounds, especially the hyposulphites, arsenic, and paintings with iodine, some of which is absorbed, and besides its counter-irritant effect, exerts antiseptic power. I regulate as far as practical, with mathematical precision, the external temperature—never allowing it to be high enough to promote fever or debility, or low enough to produce congestions and colds. Further experience will enable us to determine which of the anti-zymotic remedies is most efficient, just as we now know that quinine is *the* specific for malarial fever, and sulphur for itch; or if the researches in pathology shall establish different forms of tuberculosis, then which remedy is best adapted to individual pathological types.

If asked to explain how these remedies act, I will answer distinctly, what has been implied already, probably by destroying the organic parasite which produces the disease, just as we know that sulphur does in a case of scabies, and its compounds do in scalled-head and fermentative indigestion, and quinine probably does in malarial fevers.

Pressing engagements prevent my giving at this time the details of the treatment I employ. I will say this, however, that ordinarily, as I have before intimated, I build my hopes of success on *early treatment*. It has, at least, not as yet been my good fortune to successfully grapple with the difficulty of this dangerous zymotic poisoning, complicated with structural disorganization of vital organs. And for the reason that I be-

lieve that this cannot be done, and the earlier treatment is commenced, the greater the chances of success, I know of no more important subject in practical medicine than the early diagnosis of tuberculosis. Happily, with the present resources of our art, this may in almost all instances be made demonstrative. But to compass it will, in many instances, require a ready familiarity with the significance of the whole range of constitutional symptoms and physical signs. The accurate recognition of fever, its degree and variations, is especially important. This can of course only be done by the use of the thermometer. In taking charge of a case of tuberculosis, I always see that the patient or his attendants are provided with a tested thermometer, instructed in the proper use of it, and required to keep a record of temperature at all periods of the twenty-four hours, impressing the importance of care by telling them that the success of the management of the case will depend upon the ability to control the fever. My experience justifies me in saying that in a considerable proportion of cases this may be done, and the morbific agency, whatever it may be finally settled upon as consisting in, may be destroyed.

The Materia Medica, in its more limited range in the drug-stores, and its wider range in the universe of matter and mind, must be boldly but practically handled, and the patient watched with ceaseless vigilance. I attend my cases of tuberculosis, at least the more acute forms of it, almost as closely as I do my cases of typhoid fever, ready to combat at once all hurtful changes.

To patients favorably situated, in the earliest stages, where the digestive organs will tolerate for a considerable length of time maximum doses of the anti-zymotic agents mentioned, I believe that a larger number of favorable final issues may be expected than I have yet been able to report. My proportion of cures in recent years much exceed those formerly, as I understand better the plan of treatment, and employ it with more courage and decision.

Unhappily for the doctor, he is usually not called in the earliest stages of tuberculosis, or if so, the digestive organs of the patient will not tolerate the remedies in sufficient quantities and for a sufficient length of time to enable him to destroy the morbific cause. In such cases he must exercise a practical ingenuity by introducing them in other than the usual channels. Inhalations now, then enemata, then hypodermic injections, epidermic methods, or otherwise.

It is proper for me to remark, that while my chief reliance is placed upon remedies of the anti-zymotic class, in the changing conditions which are liable to occur in this disease I do not ignore entirely the remedies that have been more usually employed. And I wish here to reiterate my abiding confidence in the value of a succession of blisters.

And I will take occasion to say that ordinarily it is best that the friends of the patient and the patient himself should be frankly informed as to the nature of his malady. A wise discretion should of course be employed here as to the subjects, the time, and the manner of making this announcement, but I do not remember ever seeing any but ultimate good results come from such a communication properly made. It will produce some shock and momentary depression with the patient, but that will be all. For a patient to be permanently despondent, is almost pathognomonic of the absence of phthisis. While if properly informed with such assurances as we may reasonably and truly give him, his courage, his hopes and his exertions will usually exceed even those of his doctor. Hopefulness with a consumptive amounts to a monomania, but it is a monomania which his physician may utilize.

If time allowed, I should be glad to refer to other facts and considerations in connection with this important subject.—*Va. Med. Monthly Mag.*

NITRO-GLYCERINE.

One of the most important additions recently made to practical therapeutics is *nitro-glycerine*. This agent contains enormous energy stored up in its constituents, and would therefore seem, *a priori*, to be possessed of intense physiological activity. Investigations have confirmed this supposition. The form in which it is made available for administration is the centesimal solution: one minim of nitro-glycerine dissolved in 100 minims of alcohol. As there are remarkable variations in the susceptibility of persons to the action of this agent, it is necessary to begin with a minimum dose, and increase gradually until some physiological disturbances occur. Some persons experience effects from a single minim of the centesimal solution. Beginning with a drop of this solution three times a day, a drop should be added every day until the desired effect be produced. When the person taking it is under the eye of the physician, a much more rapid increase of the dose may be allowed. Some persons are able to take a minim of pure nitro-glycerine, but such insusceptibility is comparatively rare.

The physiological effects of nitro-glycerine are eminently characteristic, but they accord with those of the nitrites in general—with amyl-nitrite, nitrite of soda, etc. When a sufficient dose is swallowed, in a few minutes the face flushes, the heart bounds, and continues in rapid, even tumultuous action; the superficial arteries pulsate strongly; the head aches, with a tense, band-like feeling about the forehead, and singing in the ears, vertigo, dimness of vision, confusion of mind, and even suspension of the cerebral functions or unconsciousness may result. According to Dr. Murrell, who has himself ex-

perienced the action to this extent, unconsciousness may be produced without detriment, and be quickly recovered from. The effects are clearly referable to paresis of the vasomotor system and of the pneumogastric, whence increased action of the heart and dilatation of the arterioles follow. The hydrostatic effect of this change in the vascular tension, and in the distribution of the blood, must be obvious to all. Without further comment on the physiological actions, we now lay before our readers the results of clinical experience.

The applications of nitro-glycerine to the treatment of disease are directly deducible from the physiological study—another proof, if more were needed, of the value of the physiological method. A remedy which so depresses the vascular tension must be useful in conditions of disease in which the vascular tension is abnormally exalted. A capital illustration of this state is afforded in the hypertrophy of the heart and of the muscular layer of the arterioles, with a resulting high arterial tension, belonging to chronic Bright's disease. It has even been maintained that this condition of the circulatory system is the first step in the pathological changes. And, as has recently been shown by DaCosta and Longstreth, very important structural alterations occur in the solar ganglion and semilunar plexus. Whether these pathological conditions precede, or succeed, to the renal changes is yet a disputed question, but it is evident that the sympathetic system is concerned in them in some way. This fact has induced the use of nitro-glycerine in the chronic form of albuminuria, and it appears to have been distinctly beneficial. It is given in sufficient quantity to antagonize the high tension of the arterial system, and the state of lessened tension must be maintained long enough to have an effect on the kidney textures. If further experience shall confirm the observations already made, we have a valuable addition to our resources.

In *angina pectoris*, a state of exalted arterial tension, in a considerable proportion of cases, is an important factor. Observing this, and remembering the effect of amyl-nitrite on arterial tension, Brunton concluded that this agent would afford relief in *angina pectoris*. His theory was amply confirmed on trial. Although nitro-glycerine cannot be utilized in the treatment of the paroxysm of angina pectoris, its methodical administration during the interval may prevent the attacks.

The application of nitro glycerine to the treatment of certain cardiac diseases is a most important therapeutical expedient. When the walls of the heart are weakened by myocarditis, or by fatty degeneration, any cause suddenly increasing the vascular tension may arrest the movements of the organ. Great embarrassment of breathing, pulmonary congestion and œdema, and general dropsy may result from the weakness of the heart's walls, and these difficulties are enhanced by a condition of elevated tension of the arteries. In such cases nitro-

glycerine is found to do much better than digitalis, which, on the other hand, is more efficient when the vascular tension is low.

One of the forms of *migraine*, or sick headache, is that characterized by contraction of the arterioles, and consequent pallor of the face and lips. This is speedily relieved by nitro-glycerine. Also, the cases of neuralgia associated with spasm of the arterioles are similarly benefit d. There is, probably, a form of *dysmenorrhœa* in which the same condition of the vascular system exists, and in which the same kind of remedy is found to give relief. We might enumerate many maladies, differing in various ways, but agreeing in respect to the high state of the arterial tension, improved or cured by nitro-glycerine. There is, therefore, a wide field of usefulness for the new agent; and its applications to the treatment of disease, based on its physiological actions, are clearly defined, and have an exactness belonging only to mathematical science.—*Med. News*, April 15.

Editorial Department.

YELLOW FEVER IN NEW ORLEANS IN 1882.

The record of facts connected with the appearance of yellow fever in New Orleans is always so important that the editors of the JOURNAL offer no apology for substituting for the usual editorial, a synopsis of the two cases that have appeared here this summer.

To Dr. S. E. Chaillé, Supervising Inspector of the N. B. of H.; the published reports of the Louisiana State Board of Health, and to the House Surgeon, Assistant Surgeon and Pathologist of the Charity Hospital, and other reliable sources, we are indebted for memoranda, from which have been derived the following particulars. We would state that, with the exception of the cases now reported, not a single case has occurred. The readers of the JOURNAL may rest assured that all pains will be taken to report any future cases should they occur.

CASE ONE.

Henry Forbes, white, a native of England, aged twenty years, a sea-farer during the past year, of good habits (so

stated by himself and his landlady), had arrived at Havana, on Spanish brig "Ritta," from Montevideo, after a passage of fifty-four days. He remained there five days, during which time he was on shore one day and a half, but did not pass the night on shore. He left Havana June 11th on steam bark Marco Aurelia. He arrived in New Orleans June 18th, after a voyage of eight days duration. He was discharged from the vessel June 20th, but went to a boarding house, corner of Enghien and Decatur streets, on the evening of June 19th. June 21st he went on board the "Commander" of London; spent the night on board this vessel, sleeping in the fore-castle. June 22d, at A. M., while engaged in painting the vessel, was seized with a chill, followed by fever. Leaving his bedding on the Commander, he returned to his boarding house, where he remained until June 25th without being visited by any physician. At 9, A. M. this day he was removed to the Charity Hospital, ward 27, bed 396. Dr. Edward Jones was the physician in attendance, Mr. Williams the resident student in charge of the ward.

On admission his symptoms were jaundice and debility; he had intense fever, nausea and vomiting, also diarrhœa; his tongue was coated with a whitish fur; had headache, but no backache; there were tenderness and pain on pressure over stomach, spleen and liver. There was epistaxis; he vomited a small quantity of blood. General appearance of the vomited matter bilious.

June 26, at 5.20, A. M., the patient ejected a considerable quantity of "black vomit;" the temperature was 100.8° F. in the axilla; the pulse was frequent and weak. At 8, A. M. the temperature was 103.2°, the pulse 108. No urine was passed since the previous night. The catheter was introduced and about 8 ounces were drawn. It was highly albuminous and contained a considerable quantity of urates. The tongue was very red at its tip and border, and was covered with a dry, brownish fur at its center. The gums were congested. The palpebral conjunctivæ markedly injected, the sclerotics were yellow, and there was photophobia. The patient was very restless, with dry skin of a yellowish hue over the trunk.

There was great tenderness over the epigastrium and also over the spleen and liver, but there was no enlargement of these organs. Epistaxis and "black vomit" continued. Temperature at 9.40, A. M., 102.5; pulse, 105. Forbes died at midnight on June 26th.

The post-mortem examination was made June 27th, at 9.30, A. M. The whole surface of the body was colored orange, with blotches of dark purple, these blotches being especially marked around the neck and behind the ears. The sclerotics were a pale yellow. The gums were not spongy. The stomach contained black vomit. The liver was the typical yellow fever liver of Louis. The urine was excessively albuminous; the specific gravity was 1015; casts were present. The external appearances, the evidence of a hemorrhagic tendency, the black vomit, the albuminous urine and the condition of the liver were decisive of the diagnosis and left no doubts in the minds of any.

As the history of the steam bark "Marco Aurelia" may throw some light on the origin of the case it is appended.

The "Marco Aurelia" is an iron vessel, built at Greenock, Scotland, August 1881. It arrived at Truxillo, Spanish Honduras, May 16th, 1882; anchored about one-fourth of a mile from shore; took on a cargo of cattle from lighters, and sailed June 6th for Havana, arriving there June 9th; landed at wharf "Jesus del Monte" (opposite the gas works), a notoriously infected part of the harbor, and remained there three hours discharging cattle. The vessel then anchored in the harbor off "Casa Blanca," remaining there until June 11th at 1:30, P. M. Having left Havana at that hour for New Orleans, when ten miles from port the bilge cocks were opened so as to let in enough sea-water to ballast her. There was neither cargo or other ballast on board. The "Marco Aurelia" arrived at the Mississippi Quarantine Station June 14th at 10:30, P. M. Was fumigated. The bedding and clothing were sprayed with carbolic acid solution and the bilge was disinfected with copperas and carbolic acid. Leaving the quarantine station June 17th, at 10:30, P. M., the vessel arrived at McCan's oil wharf, Algiers, below Vallette Dry Dock June 18th, but soon after was moved

to a point near the Marine Dry Dock, alongside the "Essayons," a United States dredgeboat.

The crew of the "Marco Aurelia" numbered twenty.

Captain Thomas Morgan, native of United States, shipped February 2d, 1882, at New Orleans.

Mate Wm. A. San, native of United States, shipped February 2d, 1882, at New Orleans.

Sailor John Ballowitch, native of Austria, shipped February 2d, 1882, at New Orleans.

Sailor John Berry, native of Austria, shipped February 2d, 1882, at New Orleans.

Sailor B. Judovitch, native of Austria, shipped February 2d, 1882, at New Orleans.

Sailor A. Lasarvitch, native of Austria, shipped February 2d, 1882, at New Orleans.

Engineer A. L. Shaw, native of Cuba, shipped May 1st, at Havana.

Second Engineer Jose Lamos, native of Cuba, shipped May 1st, at Havana.

Fireman Manuel Boralto, native of Spain, shipped about the middle of March, at Havana.

Fireman Benito Duce, native of Spain, shipped about the middle of March, at Havana.

Fireman Stephen Espanso, native of Spain, shipped about the middle of March, at Havana.

Steward Thos. Clark, native of St. Thomas, shipped December, 1881 (?), at Havana.

Carpenter Douglass Thompson, native of Sweden, shipped March 9th, at Havana.

Supercargo Prospero Costello, native of Spanish Honduras, shipped June 11th, at Havana.

Fireman *Henry Forbes*, native of England, shipped June 11th at Havana.

Fireman Thos. Martin, shipped June 11th, at Havana.

Fireman Peter Peterson, native of Denmark, shipped June 11th, at Havana.

Fireman L. Peterson, native of Norway, shipped June 11th, at Havana.

Quartermaster Stephen Falloni, native of Austria, shipped February 2nd, at New Orleans.

Sailor Mike Welsh, native of Austria, shipped February 2nd, at New Orleans.

On arrival at Algiers the four firemen who shipped at Havana were, on June 20th, discharged. One of the number was Henry Forbes, who died of yellow fever.

One sailor left New Orleans, June 22nd, on S. S. E. B. Ward, Jr., for the Bay Islands. Another left for Havana, June 24th, on S. S. Herida. Twelve only of the crew were sent back to the Mississippi Quarantine Station with the vessel, June 28th, 1882. Thus far five of the original crew of twenty remain unaccounted for.

OBSERVATIONS.

An important point of inquiry in reference to Forbes' case is, as to where the poison of yellow fever was received by him. If, as seems probable, during the five days, June 7th–11th, while at Havana, there the period of incubation was from *eleven* to *sixteen* days, since he sickened on June 22nd. As the period of incubation rarely exceeds *six* days this view is improbable. If he received the poison during the progress of disinfection at the Mississippi Quarantine Station, then the period of incubation was somewhere from *five* to *eight* days, a more probable period. But this period would render inexplicable the escape of many others who apparently must have been equally exposed to the poison. If the poison was introduced subsequent to leaving the quarantine station, a larger number of persons were exposed, as during the stay of the vessel at Algiers it is reliably reported that not less than two hundred persons went aboard, and yet escaped attacks of the disease.

CASE TWO.

From a reliable source we have been able to obtain the following facts in the history of the patient who died at the Charity Hospital, July 18th, of a disease pronounced to be yellow fever by the physicians in attendance.

Ludwig Deschler, aged 31 years, white, a native of Alsace, came to New Orleans in October, 1872. He has never been

any where else in America. He worked entirely in breweries, first in Auer's brewery, 540 Tchoupitoulas street, where he remained until three months ago. For the last twenty-seven days before death he worked at the Lafayette brewery, No. 1010 Tchoupitoulas street, where he also slept. Whatever his habits were prior to coming to New Orleans, he had been, since coming here, accustomed to drinking beer quite freely, and whisky to some extent. The men working at Auer's brewery, and several at the Lafayette brewery, at which two places he had been employed for the last two years or more, state positively that he did drink freely of beer; those at Lafayette brewery further insisting that he was frequently drunk while working there. His most intimate associate, Georger, said that he did not drink. Was sick only once, and that for two days, in 1878; did not go to bed. He was taken sick at Lafayette brewery during a hard drinking spell. On July 13th was languid, and "good-for-nothing;" complained of sore throat; was jaundiced; fever doubtful; left Sunday morning for Charity Hospital; went alone in horse cars; was not apparently very sick when he left; could not ascertain that he had visited any of the ships.

CHARITY HOSPITAL, July 18, 1882.

DR. W. H. WATKINS:

Dear Sir—I take the liberty of enclosing to you a copy of clinical report of the case of yellow fever, which died in the hospital on Monday. Our report has been delayed in order to give Dr. Schmidt, our Pathologist, ample time for investigating to his satisfaction. You will find his report enclosed.

I am yours, very respectfully,

A. B. MILES, M. D.

[Copy.]

Louis Deschler, age 31 years, native of Germany, resident in New Orleans 12 years, entered the hospital, ward 24, 9, A. M., Sunday, 16th of July.

Patient's accounts of his early illness are conflicting. At one time he stated that he had been sick one week, with ac.

cessions of fever every second day; later he informed the student of the ward that he had fever every day. Temperature was not registered on admission; but, to the touch, seemed normal.

Condition at 7 P. M. July 16th, noted by Dr. Jamison: Patient jaundiced; tongue pointed, with red edges; gums congested; epigastric tenderness; urinary bladder empty. Patient stated that no urine had passed since Friday, the 14th of July. Mind unsteady, patient responding incoherently. Temperature 104° F., pulse 120.

Monday, July 17th, 9:30 A. M.: Jaundice increasing; epigastrium more painful on pressure. Patient passed urine during the night (two ounces), which, upon examination, contained albumen, 33 per ct., hyaline casts and a large quantity of bile. When left alone, patient wandering and restless; when aroused, answering correctly. Temperature 105° F., pulse 120. During the forenoon on Monday the symptoms increased in severity. The temperature ranged between 105° and 106° F. Pulse rapid, excited by convulsive muscular movements, marked tenderness over the epigastrium, nausea, but no vomiting. Red, glazed tongue, gums congested, with some hemorrhage. Conjunctivæ jaundiced and injected and withal the facies which we regarded as almost characteristic. Before death patient exhibited the nervous phenomena of uræmic poisoning, and died at 12:30, P. M. July, 17th, with a temperature of 109° F. Diagnosis yellow fever endorsed by physicians in attendance, Drs. Campbell, Veazie, Jamison and Miles.

This clinical report is supplemented by the report of Dr. H. D. Schmidt, the pathologist of the hospital.

[Copy.]

PATHOLOGICAL DEPARTMENT, CHARITY HOSPITAL,
July 18th, 1882.

DR. A. B. MILES, House Surgeon.

Dear Sir—In accordance with your request, I present to you the following report of the conditions of the organs of the body of Louis Deschler from bed 360, ward 24, such as the autopsy

made, revealed. It is as follows: The liver presented the appearance both of vascular congestion and of fatty infiltration of its parenchyma. There was no trace of cirrhosis. On the contrary, the organ appeared rather swollen, with rounded margins. The mucous membrane of the stomach was intensely congested. A quantity of viscid, reddish brown liquid was found in the cavity of the organ, which by microscopical examination, proved to consist of mucus, containing gastric epithelial cells, a number of minute, square, crystalline plates (cholesterine) and colored blood corpuscles. The whole representing the product of the congested membrane.

The kidneys presented the appearance both of congestion and granular degeneration. Small sections, cut by hand, showed under the microscope the smaller vessels filled with blood and also a few hyaline, urinary cylinders. In the capsules of these organs a very considerable number of larger or smaller brown spots or ecchymoses were observed. In the one kidney their number was very considerable. The urine drawn before death was loaded with albumen, about $\frac{1}{3}$ the fluid. The microscope revealed hyaline cylinders. The heart appeared normal in size and form, though the edges of the tricuspid valves were thickened. Microscopical examination of the muscular tissue of this organ revealed commencing fatty degeneration. Upon the surface, beneath the pericardium, a number of ecchymoses were observed. Upon the mucous membrane of the bladder also a number of ecchymotic spots were observed. In the rest the organ appeared normal. The brain was hyperæmic throughout; not only were the small vessels of the pia mater greatly congested, but there were also a great number of ecchymotic patches, some of them quite large observed over the whole surface of the organ. Sections through the latter revealed the existence of hyperæmia throughout its whole substance. In considering the above stated pathological changes, met with in the respective organs of this case, as a whole, they are identical with those I have met with in my numerous autopsies in typical cases of yellow fever; though individually they may also be observed in the

organs in other infectious diseases. The numerous ecchymoses particularly point to the presence of an infectious poison.

I am, respectfully yours,

(Signed) H. D. SCHMIDT, Pathologist,

The following is the official statement from the hand of the President of the State Board of Health:

"This day, July 17, about 2:30 o'clock in the afternoon, I was requested by Dr. A. B. Miles, House Surgeon at the Charity Hospital, to examine a corpse at the Charity Hospital. A thorough examination developed the following: Exterior, golden colored; no marked mottling of dependent portions; universal gold color of integuments, fibrous and serous membranes, from the diffusion of bile. Heart normal in size, firm in texture; under microscope, transverse striæ of muscular tissue distinct; no fatty degeneration of the heart; textures of the heart and pericardium discolored by bile. Liver congested and of a brownish red color, with portions of a lighter shade; under microscope, liver cells distinct, with no marked accumulation of oil globules. Mucous membrane of the stomach highly congested, contained about two fluid ounces of a redish mucoid liquid, coagulated by heat and nitric acid, and containing numerous epithelial cells. Kidneys large and congested; urinary bladder contained about one fluid ounce of golden colored urine with a moderate quantity of albumen and yellow casts: many of the casts were transparent with little or no granular matter, indicating that Bright's disease may have existed before the supervention of jaundice.

"History of the case—From the hospital records, as well as from a searching personal inspection and investigation, I gather the following facts: Louis Dischler, age 31 years, a native of Germany, a resident of New Orleans for twelve years, brewer by occupation, is said to have had yellow fever in 1878. He has suffered for several years with a large ulcer in left leg, marks of which were visible at post mortem. Was treated for ulcer in Charity Hospital in October and December, 1881. He worked for several years in the Canal Brewery, near Old Basin, then in Eagle Brewry, 540 Tchoupitoulas street, until the 31st of March, 1882. June 20, 1882, he entered the brewry No. 1010 Tchoupitoulas street, Fourth District, near Louisiana avenue. No. 1010 is the only house in the square, and is entirely isolated. His habits were like those of brewers generally, intemperate. He used wine and beer freely.

"On Tuesday night, June 11th, whilst drunk, he lay exposed to a draft of cold air, and next day complained of sore throat, and wrapped ice around his neck. Dr. C. E. Schuppert saw him on the 12th inst. Patient was jaundiced and

suffering from the effects of alcoholic stimulents. He prescribed Glauber salts. On the 13th jaundice was well marked; no fever, head cool, complained of chilly sensations; prescribed podophylin as a purgative.

"According to his landlady, on the 14th or 15th patient was alternately up and down; was very yellow; drank two bottles of wine; was admitted to the Charity Hospital on the morning of the 16th of July, and stated that he had suffered with access of fever every second day. At 7, A. M., on the 17th, the temperature of the axilla was 104° F., at 9, A. M., 105°, at 12 M., 107°, at 1, P. M. 109°. The patient died in less than 20 minutes after this rise of temperature.

"We have in this case a history embracing intemperance, intense jaundice, no vomiting, purgation, albuminuria, congestion of internal organs, rapid rising of temperature and death. JOSEPH JONES, M. D.,

"President Board of Health, State of Louisiana."

REMARKS.

We did not see the Deschler case. Perhaps in the present mixed condition of diagnosis, the physician who does not see a case of yellow fever has more cause for congratulation, than he who is asked to prescribe for a fellow mortal suffering under this chameleon complaint. Times have been, when if a competent and honest practitioner reported a case of sickness, fortifying his diagnosis by clinical notes and post-mortem changes, his decision was respected by his professional brethren, at least, until they were able to prove that it was erroneous. But in the Deschler case, four competent and honest physicians out of the five who saw the patient, unhesitatingly concurred in the opinion that it was yellow fever he suffered and died with. In truth, of eleven physicians who saw either the patient or his autopsy, nine concurred in the belief that he died of yellow fever; and of these nine five were officers of the State of La.

We did not see the certificate of death but understand that it was signed by two respectable and experienced physicians, both of whom are officers under the State government, and also that the certificate gave yellow fever as the cause of death. The president of the State Board of Health opposed the diag-

nosis made by the attendant physicians far enough to endeavor to cast doubts upon its correctness.

But the climax of insult and absurdity was reached, when a merchant in the State Board of Health, jumped up and offered the following resolution:

Meeting July 20th, 1882.

By Mr. Booth—

Resolved, That while faithfully adhering to the declaration that the certificate of the last attending physicians shall be conclusive as to the record of cause of death, the Board is not bound to concur in said opinion, and may lawfully and logically be of an opposing one.

Please read it again—"*This resolution was carried.*" This seems to have been followed by another resolution, but the report does not state whether it was carried or not.

Mr. Marks offered the following:

That this Board sustains the action and opinion of the president in the recent case of Louis Deschler, which terminated fatally in the Charity Hospital.

The reader will remember that there is in New Orleans, a city ordinance which imposes a fine of fifty dollars for failure to report a case of yellow fever. By this revolutionary action on the part of the State Board, what liberty to make a diagnosis is left to practitioners? Their reponsbility in a legal sense must cease with the deprivation of personal autonomy.

There can in future be no "legal" yellow fever unless the State Board has resolved it to be so, and consequently every practitioner is legally absolved from obligations to report that as yellow fever, which has not been resolved upon, and made "legal" yellow fever.

Until now, was ever anything to compare with this, heard of in an enlightened community supplied by an educated medical profession?

We will be pardoned if we are expressing ourselves with too much warmth in regard to this action, for it looks to us like a complete abandonment of the ground taken by the State Board last year, and published in the New Orleans *Democrat* of March 31st, 1881.

The President of the State Board then published the following as the position of the Board in this matter.

"In all cases the Board recognizes the inalienable right of the physician in attendance to judge for himself and to give his certificate to the Board on that judgment."

In assuming the position set forth in this declaration of 1881, how is the board to be understood? Shall we say, as the board has just voted, that it meant only to apply to the records of deaths on their books? In other words, does the board plainly say our record books may be filled with such diagnoses as we pronounce to be wrong, if you only permit us when its suits our purposes to do so, to override them for the time being.

As honest journalists, devoted to the welfare of our profession, we would, if possible, contribute something to arrest these innovations, so pernicious to truth and medical advancement.

Another very curious matter relating to this case is the subjoined extract from the proceedings of the State Board at its last meeting.

"Dr. Jones read the report of Dr. Schmidt, who set forth that the man had died of Bright's disease. He declared that from his own post-mortem examination of the man, this could not possibly be the case. He stated further, that yesterday he had met Dr. Fischer, who said that eight days ago he saw the man Deschler at No. 1010 Tchoupitoulas street, who was then drunk and jaundiced."

Can this be a missprint? If the reader will look back to Dr. Jones' report of this case, it will be found that *he* has suggested Bright's disease and not Dr. Schmidt. Dr. Schmidt's report was scientific, dignified and unpartisan. He plainly set forth that the results of the autopsy, taken as a whole, corresponded with those that he had made in typical cases of yellow fever, while changes in individual organs might, if taken separately, be accounted for by the presence of other diseases.

We see in regard to this case, on the one side, a straight forward statement of facts, and conscientious opinions; on the other side, partisanship, and a coarse determination to override all opposition to that amazing, and sadly disgusting egotism, which mistakes its own narrow prejudices for the droppings of infallible wisdom.

Reviews and Book-Notices.

A Manual of Obstetrics. By A. F. A. King, M. D., Prof. Obstetrics and Dis. Women and Children, Med. Dep. Columb. Univ., Washington, D. C., and in Univ. Vt., etc. With 58 illustrations. 12 mo. Pp. 325. Philadelphia: Henry C. Lea's Son & Co. 1882. [Sold by Hawkins. Price in muslin, $2 00.]

This little book is a very successful attempt to compress the essentials of obstetric science and practice into extremely moderate compass, and a pleasing contrast to some other large books on small subjects. By cultivating terseness of expression and avoiding useless discussion of disputed points, the author preserves about all that either the student or the practitioner actually needs in a work on midwifery, and his teaching is sound, being confessedly based upon the recent works of Leishman, Playfair and Lusk.

Prof. King is indeed excessively modest for an occupant of chairs in two medical colleges; for, while he disclaims originality in the matter of his work, he is careful to apologize for the trifling originality of coining the two words "ante-partal" and "post-partal," in place of *ante-partum* and *post-partum*. If these innovations should be successfully engrafted upon our *American* language, we may expect the offering, without apology, of *ante-mortal* and *post-mortal* by some irrepressible inventor. S. S. H.

Manual of Diseases of the Skin, with an Analysis of Eight Thousand Cases, and Formulary. By L. Duncan Bulkley, A. M., M. D., Attending Physician for skin and venereal diseases at the New York Hospital, outpatient dep't., etc., etc. Author of Eczema and its Management, etc. 12mo., pp. 312. New York: G. P. Putnam's Sons.

At the London meeting of the International Medical Congress, the section on dermatology appointed a committee for the purpose of reporting a new nomenclature for skin diseases. Dr. Bulkley in the little work, which he has written, as he says

for medical students, but which will prove as instructive to advanced practitioners, has forestalled the above committee and adopted a new nomenclature, based upon that of Hebra, which is as simple as convenient and groups diseases according to their causes and not according to their external appearance, as has been done heretofore in most works upon dermatology.

The subjects are treated in a concise manner and as thoroughly as the size of the book will allow, though it is to be regretted that a writer of Dr. Bulkley's force and clearness does not enter more fully into the etiology and pathology of the subjects treated.

Chapter XX is devoted to Diet and Hygiene, and although of the greatest importance very little space is devoted to these subjects which occupy such a prominent position in the therapeutics of the skin.

The book concludes wirh a number of formulæ which will prove very useful to physicians in treating diseases of the skin, and on the whole is as complete and instructive a manual for its size as the general practitioner will find.

It can be had in New Orleans, from the popular bookseller, J. C. Eyrich, Canal street. L. F. S.

ERRATA.

In article on Inundations, July number of JOURNAL, page 26, line 7, "A. B. Kilpatrick" should read A. R. Kilpatrick.

In article entitled The Genius of Medicine, July number of JOURNAL, most unfortunate errors have been found. Page 1, line 11 from bottom, for librarians read *libraries*. Page 2, line 4 from bottom, for prosopinic read *posopine*. Same page (2), line 12 from bottom, for curse read *cure*. Page 3, line 2 from top, for Augur veda read *Ayur vega*. Same page (3), line 4 from bottom, for immorality read *immortality*. Page 4, line 4 from top, for Democrites read *Democritus*. Page 5, line 10 from bottom, for Larodicia read *Loadicia*. Page 6, line 3 from top, for Modini read *Mondini*. Same page (6), line 8 from top, for comforting read *confronting*. Page 8, line 18 from top, for revised read *revived*. Page 9, line 3 from bottom, for physiologica read *physiological*. Page 10, line 15 from top, for Van Sireiten read *Van Sweiten*. Page 17, line 11 from top, for Pettaneofer read *Pettenkoffen*. Page 19, line 12 from top, for Wordsworth read *Woodworth*.

Meteorological Summary—June.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temperature.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	29.896	76.4	67.7	N. W.	.....	Mean Barometer, ——.
2	29.941	76.1	66.7	East.	.....	Highest Barometer, 30.230, 6th.
3	29.930	79.7	71.0	.....	.....	Lowest Barometer, 29.779, 9th.
4	30.044	78.8	65.7	North	....	Monthly Range of Barometer, 0.451.
5	30.169	75.0	54 7	East.	.....	Mean Temperature, ——.
6	30.174	72.2	73.7	East.	.07	Highest Temperature, 91.8, 22d.
7	30.071	72.9	84.7	N. E.	.16	Lowest Temperature, 67.2, 2d.
8	29.863	72.3	90.7	N. E.	.86	Monthly range, ——
9	29.802	75.6	86.3	North	..23	Greatest daily range of Temperature, 15.9, 22d.
10	29.824	80.3	70.0	West.	.....	
11	29.919	82.2	73.7	S. W.	.....	Least daily range of Temperature, 5.0, 8th.
12	29.941	83.3	73.0	.....	.....	
13	29.996	79.6	80.3	East.	.52	Mean of Maximum Temperature, 86.9.
14	30.067	81.7	73.0	East.	.....	Mean of Minimum Temperature, 75.6.
15	30.065	82.5	74.0	East.	.....	Mean daily range of Temperature, 11.4.
16	30 008	84 0	67.7	S. W.	.....	Prevailing Direction of Wind, E. & S.W
17	29.905	83.8	68.3	S. W.	.04	Total movement of wind, 4497 miles.
18	29.884	84.4	70.7	S. W.	.....	Highest Velocity of Wind and Direction 24 E. & N. E.
19	29.972	84.3	71.0	South	.....	
20	30.058	84.6	69.3	South	.....	Number of Clear Days, 11.
21	30.121	85 9	64.3	South	.....	Number of fair days, 13.
22	30.117	85.5	68.7	N. E.	...	No. of cloudy days on which rain fell, 4
23	30.079	85.1	70.0	S. W.	.....	Total No. of days on which rain fell, 11
24	30.049	83.5	72.0	East.	* —	
25	30.073	82.7	73.3	South	.24	
26	30.108	83.3	73.3	South	.03	
27	30.102	84.0	72.3	.....	.51	
28	30.046	84.8	73.0	South	.....	
29	30.020	84.8	70.7	S. W.	.05	
30	30.033	85.0	65.7	S. W.	.....	
31	.....	....	....	.....	.....	
Sums.	.....	....	....	.....	2.71	
Means	30.009	81.1	71.8	E.S.W	.....	

COMPARATIVE TEMPERATURE.

1873	80. 1	1878	82.0
1874	81. 3	1879	80.9
1875	80. 1	1880	80 1
1876	80.06	1881	83.0
1877	81. 3	1882	81.1

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	6.68	1878	7.35
1874	9.62	1879	2.96
1875	4.92	1880	6.43
1876	6.20	1881	2.84
1877	2.75	1882	2.71

*Inappreciable.

L. DUNNE, *Serg't, Sig. Corps, U. S. A.*

Mortality in New Orleans from June 17th, 1882, to July 8th, 1882, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
June 17	0	9	15	15	4	126
June 24	0	17	22	12	2	149
July 1	0	10	15	9	3	119
July 8	0	6	16	10	4	102
Total.....	0	42	68	46	13	496

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

SEPTEMBER, 1882.

ORIGINAL COMMUNICATIONS.

Bile and Digestion.

By J. WM. STOKES, M. D., Corinth, Miss.

The investigation of the function of bile in its relation to digestion, involves the consideration of two dependent questions:

I. Does bile perform *any* function in digestion? and II. What is that function? And since upon the answer rendered to the former depends the pertinence of the latter, we shall proceed directly to its consideration.

I. First, then, does bile enter at all as a factor into the process we call digestion?

When we consider that bile is the constant secretion of the largest gland in the body; that this gland is supplied with blood from two distinct sources, and in weight is nearly 3 per cent. of the entire body; the inference by analogy alone in the correlation of nature's processes, and especially those exhibited in the animal economy, is that it should perform some highly important function or functions in that economy. That it is poured into the upper part of the intestine when important processes of digestion are transpiring, and only traces of it find exit through the anus with the débris of nutrition, creates strong presumption of some office peculiar to it in digestion. It is still conceivable and possible, however, that

bile is solely excrementatious in character; and hence we will first direct attention to this phase of the subject.

Now, bile is either (1) purely an excrement, or (2) enters as a factor in digestion—including in the term absorption. These two reciprocal propositions cover all the logical possibilities in reference to the presence of bile in the intestine; for if bile perform *any* function in digestion, it cannot be solely excrementatious in character, and *vice versa*. Of course, it might perform its function, be broken up in the process, and all its constituents discharged with the débris of the system; but even in that case it could not strictly be termed an excrement. Yet, not even in this acceptation would the term apply to bile. Hence we shall address ourselves in the first instance to the elimination of the possibility that bile is an excrement, and therefrom the last term in the above antithesis will follow by necessity.

(1) Bile is not an excrement. Were this its character in reality, we should find it all, or its constituents, in the excretions of the body; and there are but two main routes by which it may find exit—(a) with the alvine dejections, or (b) with the urine. Hence it must all be passed with the fæces or with the urine, or complementary portions by each of these routes. No account is made here of the excretory function of lungs and skin; since the composition of biliary matters is such as to preclude the possibility of their ejection from the system in this way.

(a) It is not all passed with the fæces; nor yet more of any element, than might be accounted for by accidental entanglement. As a matter of course cholesterine, pre-existing in the blood as an excrementitious principle, is to be regarded as holding a *merely* accidental association with bile in common with other liquids and secretions of the body. With this preface, we proceed to scrutinize and compare the data upon the subject.

By careful and protracted observation, Bidder and Schmidt found that a dog weighing 8 kilogrammes excreted in five days 97.3 grm. fæces, 40.9 grm. of which were solid. The solid matters of bile secreted in the same time should be 39.52

grm.—i. e., nearly equal to the solid portion of the fæces in this case. But the fæces showed only traces of bile solids upon application of the usual tests; and in any case it is evident that vastly more than 1.38 grm. of the solid fæces must have been furnished in the given time, by the débris of nutrition and waste.

Now it is true, that if the bile solids had split up in their passage down the alimentary canal, their elements would not give the characteristic reaction. How is it then in reference to the elements of bile in the fæces?

Sulphur is one of the most constant of these elements, and in bile of dogs amounts to 6 per ct. of the solids. Being very little subject to change of any kind, this element should be readily detected. Hence in 39.52 grm. solid bile secreted in 5 days, there should be 2.37 grm. sulphur. The fæces in the given case contained, however, only .334 grm. sulphur, more than half of which, it was estimated, must have been due to the abundant hairs present in the fæces. It is evident, therefore, that but a small proportion of the sulphur secreted in bile in the given time passed out with the fæces.

Cholalic acid also enters largely as an ultimate element of bile; and its presence is readily detected. In 1862, Hoppe collected for three days, and weighed, the fæces of an 8 kilogramme dog. They aggregated 287 grm.; in which was found by analysis 1.1 grm. cholalic acid for the entire time, or .36 grm per day. Now, according to the accepted standard for a dog of that weight, the solid acids of bile secreted in 24 hours would be 4 grm. But .36 grm. cholalic acid, by synthesis, would represent .46 grm. tauro—or .41 grm. glyco-cholic acid; hence less than $\frac{1}{2}$ grm. out of the 4 grm. secreted and discharged into the intestine, found exit with the fæces. It follows, therefore, that but a small portion of bile solids, and this portion mechanically entangled most probably with the débris of the system, is carried out with the fæces.

To this conclusion it may be objected, that the premises are insufficient in number to establish their generality. It must be remembered, however, that the above are typical cases, ex-

pressing the *general results* of several experiments of several experimenters; and are accepted by physiologists as facts.

(b) We come now to consider the question in reference to the only other avenue of escape as an excrement—the urine. Unless investigation here gives evidence that the complementary portion of bile solids finds exit in this way, our proposition is established; the excrementious character of bile is negatived; and the other term of the antithesis follows necessarily from its exclusion.

It is a matter of some regret, that in observations upon dogs affected with biliary fistulæ, attention was not extended to the urine also; but the data furnished by experiments, directed originally to a different end, are entirely competent to decide the point now in question.

By scanning the results of Lehman's series of experiments upon himself, with a view of determining the relative constituents of urine under various kinds of diet, we learn that upon a purely nitrogenous or animal diet, he excreted in 24 hrs. 53.2 grm. urea; upon a purely *non*-nitrogenous diet, 15.4 grm. urea in the same time. This last, then, may finally be assumed to represent the normal daily amount contributed from all sources in the body, independently of food—from secretions and disassimilative process. Now, urea bears to the solids of urine the proportion .524; hence, 15.4 grm. urea represent 29.6 gram. solid matters in the urine in 24 hrs.; and since the amount of bile secreted in 24 hrs. is known to be affected to a scarcely perceptible degree by various foods and conditions, its solid matters in the same time would aggregate 30 grm.—i. e., the solid matters of bile secreted exceed the solid matters of urine in the given time by .4 grm.

But beyond doubt much of the urea is the product of disassimilation of nitrogenized tissues; so that the real excesss of bile solids secreted over the portion by any possibility excreted in urine, must be very large indeed—if in fact any is so secreted.

Some additional weight is given to this by the experiments of Prof. A. Flint, Jr., upon the pedestrian Weston, and corroborated by the observations of Dr. Pavy upon the same individual. These gentlemen found that urea—the element of

urine, which must contain the major portion of bile solids excreted by this route—is dependent in amount upon muscular exercise more than any or all causes else.

During the five days' walk, included in the period of observation, Weston ingested daily in food 234.76 gr. nitrogen. The entire daily amount excreted in urine and fæces was 361-52 gr. Now 234.76 gr. must represent all the nitrogen by any possibility derived from food ingested. Hence, 361.52 gr.—234.76.= 126.76 gr., must represent the portion of nitrogen furnished from all sources in the body independently of food—*i. e.*, from disintegrated tissues and bile, say, five times this, or 633.8 gr., equal the amount from these sources during the day's walk.

In the same period, the solid matters of bile alone would equal 2,310 gr., and by quantitative analysis of its nitrogenized constituents, the nitrogen thus supplied would be 34.175 gr. Now the loss of weight actually sustained during the walk was 26072 gr., 3 per cent. of which, or 782.2 gr., were nitrogen. That is, the nitrogen of the disintegrated tissues alone exceeded by 148.4 gr. the entire amount excreted by both fæces and urine, over and above that derived from food. The products of disassimilation *must* be excreted, so that it is difficult to see how bile could have furnished any part of the amount. The conclusion seems irresistible, therefore, that but a small portion, if any, of the bile solids or fluids escape from the body through the way of the urine.

An interesting question presents itself here as to the ultimate destination of bile. It is constantly secreted and discharged into the duodenum during the process of digestion ; it is not excreted as a whole, nor yet appreciably in its elements —what becomes of it ?

Most probably it is absorbed from the intestine after performing its part in digestion (if any) and returned to the liver, to be again secreted and discharged—a sort of circulation of bile similar to that of blood.

Lafter injected the coloring matter of rhubarb and sulphate of soda into the duodenum of a dog, and observed in the space of a minute the same colors in the bile collected from a biliary fistula.

Schiff injected 180 c. c. fresh ox bile into the duodenum of a dog that, previous to the experiment, had discharged 2 c. c. bile from his fistula in 20 min. After waiting a short while, the amount collected in 20 min. from the fistula, was 10 c. c., and at the end of an hour after the injection 8.5 c. c. in 20 minutes.

Further, the experiments of Heidenhain show that bile of guinea-pigs as a rule gives no reaction with Pettenkoffer's test; yet, if ox bile be injected into the duodenum of one affected with a biliary fistula, in ½ hour thereafter, and for 1, 2, 3 hrs., a distinct reaction is given by the bile collected from the fistula. This gentleman also observed a change in the color of dog bile soon after the injection of fresh ox bile into the duodenum.

This would explain a fact generally observed, that the amount of bile secreted in a given time is diminished by purgation; where doubtless the bile is swept out of the intestine, entangled in its contents, ere it can be absorbed. Thus the amount secreted by the liver is diminished, until this unexpected loss can be repaired from the resources at hand. This is precisely similar to the fact observed by Schiff, that the rate of secretion is at once diminished by diversion of bile from the intestine.

This concludes what we have to say upon the excrementitious character of bile. We have shown that neither is it, or any considerable portion of its elements, excreted by the urine and fæces severally nor collectively by both.

(2) Is there now any *positive* evidence that bile is intimately concerned in digestion?

At the outset here, it is a significant fact that ingestion of food is followed immediately, and for sometime thereafter, by a largely increased flow of bile into the intestine—a fact more marked, it is true, in animals that feed less frequently than man; yet in man sufficiently marked to indicate an epoch in its flow. Furthermore, after reaching its climax, it gradually subsides, as the digestive process approaches completion, into a condition of stasis until the stimulus is reversed. And if this be indefinitely withheld, establishing the condition of fasting,

and the animal killed in this state, the bile bladder is invariably found to be distended with the secretion; whereas, if killed soon after feeding, the bladder is always found empty. I shall not dwell at any length upon the class of sensations, referable to digestion, which by common consent is attributed to disordered function of the liver. This vulgar opinion may not possess great scientific significance of itself; but certain it is, that such symptoms are most generally relieved by administration of those agents which act electively upon the liver, and stimulate it to greater activity.

In further corroboration of this view is the observation of Eaglesfield Smith, that great benefit accrued to a patient affected with jaundice from the administration of fresh bile from a mammal. It is not unworthy of remark, too, at this juncture, the close analogy subsisting between the symptoms characteristic of a well-developed case of jaundice, and those exhibited by animals affected with biliary fistulæ. The same fetid fæces and flatus, the same progressive emaciation characterize both; and if in the former the condition be not arrested, the same result ensues in both, a correspondence which might have been anticipated; since the result should be the same, whether bile be diverted from the digestive process directly by biliary fistula, by occlusion of the ductus communis or by refusal of blood to surrender in the liver its biliary material. The result is in reality the same—absence of bile from the digestive process; and in all cases alike nutrition is interrupted.

We come now to the consideration of a class of experiments, to which objection has been made, rather impertinently, that they establish a pathological rather than a physiological condition. So they do; but it is this very pathological condition, which remains and gradually increases in gravity after the immediate effects of the operation have subsided; it is this very condition that is fraught with information in reference to the function of bile in digestion. For, if it performed no function, then should its absence from the process be attended by no untoward consequences. We refer to experiments upon animals in which the bile was diverted from

the intestine by means of biliary fistulæ. And first in reference to perseverance, success and uniformity of results, stands Schwan.

He established biliary fistulæ in eighteen dogs, ten of which died from the direct effects of the operation. In two the duct was re-established; and the remaining six, in which the bile was completely diverted, all died in 7, 13, 17, 25, 64 and 80 days, respectively, after the operation, with all the symptoms of profoundly disturbed nutrition—inanition, loss of flesh and muscular power, unsteadiness of gait, falling of hair.

Subsequent experiment upon 30 dogs by the same observer, corroborated his former results. All died; though one lived 4 months, and one a year—the symptoms gradually increasing in gravity until death ensued.

Precisely similar in all essential particulars were the results obtained by Bidder and Schmidt from similar experiments. The several subjects of their observation, as well as Claude Bernard's, lost weight steadily, though appetite was unimpaired, and even increased to voracity; the skin became loose; muscles were scarcely perceptible; hair fell out. They all noted the exceedingly disgusting odor of the fæces and breath, and abundance of flatus in the intestine.

Prof. A. Flint, Jr., also performed, with distinguished success, the operation establishing a biliary fistula upon a dog, completely occluding the common duct and diverting the bile. This dog passed through all the stages above described, dying at length on the 38th day after the operation. The observer noted no fetor of breath in this case; but adds that, though the animal ate ravenously of lean meats, it could not be induced to touch fats, even after fasting a considerable time. In all these cases the occlusion of the ductus communis was demonstrated by post-mortem dissection.

Nasse claims to have kept a dog affected with a biliary fistula alive for five months without appreciable loss of weight; but it died at the end of that time without any apparent cause. The general results, however, obtained by this observer corroborate those given above.

As an offset to these numerous cases, we have now to consider two individual cases of an apparently contradictory character. One is furnished by Bloudlot, whose dog was allowed at first to lick the bile as it flowed from the fistula; but was afterward prevented by a muzzle. It lived five years in good health, being used meantime for hunting. Post-mortem dissection in presence of several physicians and students showed the duct to be entirely obliterated. It is to be remembered, however, in this case, that except during the first and last three months of the five years, the dog was not under Bloudlot's observation at all; and we are not informed whether it was allowed in the interim to lick the bile as at first, or even whether the fistula remained open. So that, whatever contradictory weight this might have, must be discounted in the absence of information upon these points.

The other is supplied from the reports of the Edinburgh Committee, under whose observation, as reported, a dog similarly affected was kept five months with a gain meantime of 4 kilogm. in weight. It is by no means certain, however, that in both these cases a duct was not improvised under the conservative laws of nature; or that, under the same law, sufficient bile did not find its way into the intestine by osmosis. More remarkable provisions than either of these supposed have occurred in the animal economy. And the former explanation gains credence from an experiment, related by Prof. Flint, in which the dog lost the canula from his fistula. The wound soon healed, and some months afterward the dog, apparently in good health, was killed. Upon examination the ductus communis *seemed* to be obliterated in this case also, and was in reality; but a tedious and careful dissection of neighboring tissues was at length rewarded by the discovery of a small, tortuous canal, through which bile found its way into the intestine. Like perseverance in the cases above cited might, and would, in all probability, have discovered a similar provision. But discounted though the numerous concurrent cases be by these isolated experiments; yet, in view of all the evidence, there can be no rational doubt that bile performs some very important function in the process of digestion. Indeed this seems

to be as well established as any other general physiological fact.

As this brings us to the conclusion of the first division of the subject, let us summarize the points established: (1) Bile is not excreted to any considerable extent, either (a) with the fæces, or (b) with the urine; and even the small portion thus excreted is most probably carried out by accidental entanglement with excretory principles. But there seems to be rather a circulation of bile, in some respects similar to that of blood (2) By sequence from (1) and by disturbance of nutrition exhibited in its absence, it must enter as an important factor in digestion.

II. What then is that function which it performs? That its function should be complex, and not clearly marked like that of gastric juice, might, as we have stated above, have been anticipated *a priori* from its very composition—comprising a variety of complex substances more or less loosely united, most of which are readily resolved into their ultimate elements, possessing distinctive reactions. Moreover, we do know that such resolution transpires with more or less facility in various parts of the intestinal canal.

(1) First, then, bile seems to aid in digestion by retarding putrefaction, which is prone to occur when a variety of disintegrated and disintegrating substances are collected together in the presence of heat. This is attested by the unbroken testimony of experimenters to the offensive odor of fæces, when bile is diverted from digestion, and to the presence of flatus in large quantities under similar circumstances—both of which are invariable concomitants of putrefaction within and without the intestine.

It is established by experimentation extra-intestinal. Von Gorup Besauez demonstrated that, when meat is digested with bile at the temperature of the body, the putrefaction process is postponed for a considerable period beyond that at which it is set up under the same circumstances without bile.

A similar postponement of fermentation occurs in syrup and urine, according to the same observer. Moreover, Claude

Bernard found that fermentation in yeast taken from a dog's stomach was completely arrested in presence of bile.

Stolukoff gives the following comprehensive and intelligent variations of these experiments. Bile and water; fibrin, bile, water; fibrine, fat, water; fibrine, fat, bile, water; were grouped as above in separate bottles, and allowed to remain undisturbed from the middle of June to the middle of August. The gas, collected from each over mercury, was, at the end of the time, found to be greatest in quantity from the jar containing fat and fibrin without bile. Though the water and bile had split up into new products, there was no gas given off from the jar containing them alone. The gas collected showed about 92 per cent. Co_2; while the bile acids had split up into glycocol, taurin and cholalic acid.

Bidder and Schmidt also kept meat and albumen 48 hours in solution of bile acids at the temperature of the body, without at the end of that time any putrefactive changes being apparent; whereas the same substances treated simply with water gave distinct signs of such changes in 24 hours. But it is not necessary to further multiply testimony on this point.

(2) Bile or some of the products of its decomposition acts as a persuader of peristalsis in the bowel. This property seems to be enjoyed by its pigment and its acids; but in an especial degree by cholalic acid—as shown on the one hand by Shülein, who found purging and vomiting follow the administration of bile acids; and on the other by the statements of Tiedman and Gruelin, and Eberle, to the effect that all dogs with biliary fistulæ under their observation severally were costive and the fæces very hard and white. Bile seems, therefore, to be a natural inviter of peristaltic action and intestinal secretion.

(3) Bile emulsifies fats to a certain extent, and facilitates their absorption. This seems to be the most generally conceded of all its properties; and has been attributed to it since the earliest times. The former is easily demonstrated in a test-tube; the latter, by the fact, first demonstrated by Von Wittinghausen, that fats find their way through animal membranes or plaster wetted with bile and at the temperature of

the body, much more readily than when dry or moistened with water—indeed there is no evidence that fats are ever absorbed in any marked degree, save through the action of bile upon the membranes of the walls of the intestines. How this is effected does not appear. Most probably the fats are subjected to finer sub-division, or else the stomata of the membrane are modified thereby—or possibly both these occur.

The absence of fat through failure of these modifications would account for the clear, colorless character of chyle observed by Brodie, Bidder and Schmidt, Magendie, and Tiedman and Gmelin, in dogs with biliary fistulæ or tied ducts. According to the last two, chyle of dogs in normal condition was white and milky, while the liquid found both in lacteals and thoracic duct of those with tied ducts was clear and translucent; the difference being due to lack of finely divided particles of fat in the latter.

However it may effect its purpose, one fact is incontrovertible, namely, that the presence of good, healthy bile is a *sine qua non* to the elaboration of fats in the animal economy.

(4) Fresh human bile, in common with that of many mammals, in a limited extent converts starch and hepatic glycogen into sugar. (Bufalini and Whittish.)

It possesses no power over the sugars themselves. (Frerichs and Schiel.)

Whether this is an original and invariable property, it is impossible to say; but it is difficult to see how so limited an action could be necessary to vitality. If, however, sugar in certain proportion be a necessity to the healthy performance of vital functions, it is conceivable that, in certain conditions where the direct sources of sugar supply are cut off, this power of bile over hepatic glycogen might rise to considerable prominence.

These in the aggregate constitute the function of bile in digestion, so far as can be predicated with any certainty in the premises. Are they sufficient to account for the presence of bile in the intestine? We can only say in reply, that the absence of bile from the intestine is invariably attended by an almost total suspension of these actions—several or all of them—and

the suspension of these actions for any considerable period produces death. For our part, we cannot see why elaboration of fats, repression of putrefaction, and promotion of peristalsis, should not collectively constitute a satisfactory account of its presence—certainly they are essential to existence.

On the Transmission and Transformation of Nervous Diseases Through Heredity.

By THOMAS LAYTON, M. D.

Read Before the New Orleans Medical and Surgical Association, on Saturday, July 1st, 1882.

Mr. President and Gentlemen:—My venerated master, Velpeau, was fond of repeating to his students the classic saying: *Fortunate is he, who can discover the causes of things.* Be it understood, however, that this sentiment is uttered without the least intention of disparaging the immense progress made during the last few years. On the contrary, the gain which accrued to our art is recognized with legitimate pride, exciting, as it does, the hope that, in the near future, the remaining clouds which obscure certain branches of medicine will be scattered. Nevertheless, it is indisputable, that in many instances the physician has to deal with problems as knotty as the riddle of the sphinx; he is confronted by the fact, that his department of science is not by any means as positive as that of the astronomer, who can, with mathematical precision, calculate the tides, foretell an eclipse, announce the return of a comet, predict a transit and ascertain the periods of the moons of Mars.

The subject, *insanity and crime*, is one of those proposed by our Committee on Scientific Essays. I beg permission to be allowed to enlarge the same into the more general topic of the TRANSMISSION AND TRANSFORMATION OF NERVOUS DISEASES THROUGH HEREDITY.

At the very threshold of these remarks, I find myself face-to-face with the partisans of the two schools—the physical and the metaphysical—which, for centuries, have been at war upon the subject of the brain.

I.

The brain, concerning which, a recent author (1) writes :— "There is that unconscious attraction which draws the human mind towards the unexplored regions of the unknown—towards those mysterious realms where the living forces of all our mental activities are silently elaborated, and where the solution of those eternal problems, regarding the relations of the physical organization of the living being to the acts of its psychic and intellectual life, evades us as we pursue it."

It would be an interesting study to go into an extended analysis of the differences which divide the physical and metaphysical schools with reference to the brain ; but this would entail such a departure from the scope of this paper, that the only course possible will be to present a brief summary of the case, making extracts for this purpose from an article on the "*Practical Study of Mind.*" (2) "To the metaphysician, mind is an independent entity in an upper sphere of being ; to the mental physiologist, it is the activity of an organized mass of nerve cells and filaments, charged with blood and carrying on processes of thinking and feeling, under the laws of nutrition .... To the metaphysician, in all the metaphysical ages, insanity was a sealed book, and by this method would have so continued to the end of time. And this, for the reason that the metaphysician cannot or will not recognize in any adequate degree the dependence of psychical effects upon physiological conditions .. It is to the physician and not the metaphysician, to the anatomist who studied the structure of the brain, and to the physiologist who studied its functions, and the pathologist who studied its diseases, that we owe all our knowledge of that most practical of all subjects, irregular and abnormal mental action." The writer goes on to say that this is exemplified by Morselli, in his work on suicide (3), in which it is shown .... "that the phenomena of suicide observe a regularity to which we give the name of law. But more than this, it is proved that suicidal regularity has an orderly variation—corresponding to

(1) The Brain and Its Functions : J. Luys.

(2) Popular Science Monthly : February, 1882.

(3) Suicide—An Essay on Comparative Moral Statistics: H. Morselli, M. D.

variations of external condition—climate, season, country, age, sex, race, cultivation and social circumstances." To the metaphysician, "mind is an abstraction mysteriously related to matter but not coerced by it; mind, he maintains, is free; matter is enslaved by law. Men, accordingly, kill themselves because they choose to—because they are free agents and depraved beings." On the other hand, the physician sees "how suicide, though a mental phenomenon, may be due to physical causation .... No man now denies that insanity is a corporeal fact—a derangement of the action of the material organ of feeling and thought. We know that suicide is a marked accompaniment of the cerebral disorder of insanity."

We read in a work (4), by the Professor of Logic in the University of Aberdeen, that: "Many persons, mocking, ask what has mind to do with brain substance, white and grey? ... Now, the facts that connect the mind with the brain are numerous and irresistible ... All those abuses and casualties that impair the mental faculties act upon the nervous substance .... Next, as regards mental changes leading to brain changes, or being associated with them, we can quote very extensive observations. After great mental exertion or excitement there is an increase of the products of nervous waste .... Among the chief causes of insanity must be reckoned excessive drafts upon the mind.....

After having thus stated the case, as presented by one adversary, it is but fair to listen to some of the arguments which may be advanced in support of the views entertained by the other party. For this purpose, therefore, a few extracts are here introduced from the discourse, on "The Future of Mind," delivered in April last before the Medical Association of the State of Alabama, by Doctor Peter Bryce. In this carefully pondered address, we read as follows:

"But while science is disclosing the methods of mind, and preparing for it on earth a nobler and still more noble *rôle*, what are its testimonies as to the duration of mind—its immortality? Some of the most devoted adherents of scientific

(4) Mind and Body,: By Alexander Bain, L.L. D.

methods have reached conclusions which are unfavorable to mind's immortality. But it is not surprising, in view of the novelty and marvelousness of many lately demonstrated scientific truths, that even men of calm temper should be led to attach undue importance to them—to claim for them reaches and meanings which do not of right belong to them. Close as may be the demonstrated union between mind and body, no philosophy of organization and life satisfactorily accounts for the presence of mind. Mind is indeed unique, peculiar; has its own laws, and overleaps and undermines all mere material phenomena. The study of mind is, therefore, incomplete unless subjectively pursued. The mind must be questioned, must testify of itself, if we would arrive at anything approaching just conclusions with reference to it. This is indisputable, from the fact that mind is that mysterious quality in us by which we explore all material phenomena .... But if only by questioning mind about itself we can rightly understand its nature, dare we, in conducting the inquiry, ignore a whole host of its most prominent intuitions? Surely not. But mind's testimony of itself is, that there are in it indefeasible principles of individuality, responsibility and immortality. It would be strange, indeed, if this noble, this intensely royal thing, which disdains to be classed with any material forces, however sublimated they may be, should be remanded to the companionship and fate of the phenomenal, the sensual, the perishing!

Happily for the theory of evolution, not all nor even the majority of its advocates have given assent to such conclusions. Mr. Darwin has ever conjoined with his marvelous disclosures of the relations of organic facts a spirit of religious reverence. Mr. Herbert Spencer avows that there are unseen, eternal verities which justify religion. Lessing, David Strauss and Professor Helmholtz could not reconcile themselves to the thought of a final destruction of the living race, and, with it, all the fruits of all past generations. Others among them, however, assume that, since mind is only known to us as a phenomenon of organism, the death of the organism involves a discontinuance of all its functions—thought, affection, and

will, not excepted—and their resolution into the more primitive forces from which they originally sprang. But it is clearly a most unwarranted assumption that spiritual individuality —the fundamental principle of which no one pretends to apprehend—cannot be prolonged or perpetuated, except under such material circumstances as earth supplies. If it be recollected how ignorant man is of the essences of matter and motion, and that there are in mind or spirit qualities which cannot be ranged with material things, or with their almost infinitely subtile forces, we will readily see that the assumption of no conscious life except under such circumstances as material things supply is most unwarrantable ..... But in still another aspect mind must be considered a higher and vastly more subtile force than any physical forces with which we are acquainted, and in its actions and methods of development is governed by laws peculiarly its own. Mind or mental force is, therefore, unique and stands apart as a grand exception to the general law of the correlation of forces. But as all the physical forces are persistent in some form or other, it is eminently unreasonable to suppose that this peculiar force, that immeasurably transcends all others, should alone undergo absolute extinction. It needs must be, therefore, that mind or mental force shall continue to exist after dissolution of the organism with which its manifestations are associated, by passing into a new state, or new conditions of activity, of which science takes no cognizance. Thus considered, mind, in its ultimate analysis, becomes a purely spiritual entity which can never be dissolved and commingled with the heterogeneous forces of the material world."

Phrenology endeavored to show that in human beings the development of the mind was connected with the size of the brain. How absolutely uncertain such teaching is, may be inferred from the great differences and the utter discrepancy to be found in the head measurements of men distinguished in every department of human activity. In this connection, a recent writer in the *Lancet*, remarks: "It would be strange indeed, if any moderately intelligent person supposed the hat or even the head could supply the measure of brain power. The

late Doctor Pritchard, finally disposed of the notion that cranial measurements could be accepted as brain measurements ....The chief point of interest as yet elicited from the direct investigation of brain measurement, would seem to be that the cerebral organs commonly found in the class of brain workers, show evidences of being locally and specially developed, and probably, as a physical consequence, are irregular and for the most part unsymmetrical. Hereafter, probably, light may be thrown on the subject of special or regional developments, both in regard to their personal growth and transmission by heredity."

The train of thought awakened by this article in the *Lancet*, renders it unnecessary to do more than recall the discoveries made by Broca and others; the former definitely locating the faculty of language in the left anterior lobe of the cerebrum, at the inferior part of the third frontal convolution, where it overlaps the Island of Reil. Here, I may be permitted to refer, by their titles, to the able articles published in the New Orleans MEDICAL AND SURGICAL JOURNAL, by Dr. H. D. Schmidt, on "Cerebral Localization," (5) and on "Destructive Lesions of the Cortical Layer of the Cerebrum." (6) as well as to the valuable paper on "Some Points concerning Cerebral Phenomena" (7), by Dr. S. E. Chaillé, which appeared in the same publication a few months since.

With reference to unsymmetrical brain development, I beg leave to call attention to the following curious instance: In certain cases in which the symmetry of the cerebral hemispheres was not perfect, "or did not exist, no disturbance of the intellectual faculties was noted. Every one knows that after the death of the celebrated *Bichat*, one hemisphere was discovered to be in a state of almost complete atrophy, which appeared to be, by no means of recent origin. Who would venture to deny the mental capacity of the illustrious anatomist, his lively imagination, and that spirit of generalization, which has immortalized his name?" (8).

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(5) July, 1877.
(6) March, May and October, 1878.
(7) July, 1881.
(8) J. A. Fort. Anatomie et Dissection. (Translation mine. T. L.)

The truth is, that we learn but little from the shape and size of men's heads concerning the power that lies enthroned within; and we are perhaps in this regard, no further advanced to-day, than were our forefathers in the time of Shakespeare, who makes Hamlet say:

"That skull had a tongue in it, and could sing once ....

This might be the pate of a politician .... one that would circumvent God, might it not?" (9)

It seems, however, that more satisfaction can be derived from the study of brain-weights. *Bain*, whom I have already quoted (10), says: "Among idiots, brains have been found weighing from 27 ounces, all the way down to 8½ ounces. According to Dr. Thurnam, the brains of insane persons are 2½ per cent. below the average of the sane ..... Comparing the increasing size of the brain with the increase in mental power, we are struck with the smallness of the one increase as compared with the other."

According to *Bastian* (11) the average weight of the male human brain is 49½ ounces, and that of the female 44 ounces.

Bain continues: "The brains of extraordinary men seldom reach Cuvier's figure, 64 ounces. Now, the intellectual force of the ordinary mind is surpassed by Cuvier in a far higher ratio than this. Taking the mere memory, which is the basis of intellect, an ordinary man could not retain one-third or one-fourth, perhaps not one-tenth, of the facts stored up in the mind of a Cuvier." Here, it may not be amiss to say, that *Mr. Paul Topinard* considers even the great weight of Cuvier's brain, which was 1820 *grammes*, to have been "due in no small degree to the well attested presence of hydrocephalus during the infancy of the great naturalist."

II.

To come now to the subject proper of this paper, namely, *the transmission and transformation of nervous diseases through heredity*, I admit frankly, the question before me being of such magnitude, and the authorities bearing upon the same so

(9) Hamlet, Act V. Sc. I.

(10) Bain, op. cit.

(11) Bastian. The Brain as an Organ of Mind.

voluminous, that I am considerably embarrassed in entering upon my theme. On the one hand, undue prolixity must be avoided; but on the other, sufficient must be said to demonstrate the fundamental proposition of this paper. I beg your indulgence therefore, if I fail always to follow that safe middle course, whose observance is so confessedly difficult.

Trousseau, that great master and brilliant word painter, says, in speaking of the part played by heredity as a predisposing cause of epilepsy (12): "I can, with difficulty, comprehend how certain estimable authors can have been in doubt with regard to a fact so generally accepted by practitioners. What may have led them into error is the circumstance that the disturbances of the nervous system which manifest themselves in some persons in the shape of epilepsy, in others take on the appearance of phenomena of an entirely different order. This *transformation of nervous affections*, one into another, is an immense question suggestive of development to a degree which cannot be entertained here; to remain however within the limits of the subject with which we are dealing, question patients scrupulously; study attentively whatever relates to their antecedents, and in many instances you will discover, either among their direct ascendants, or among their collateral relatives, accidents similar to those which they themselves experience; or else, insanity under some one of its varied forms; or again, you will learn of the existence of singularity of character or manner, or you will hear of lesions of innervation marked by strange symptoms, by peculiar nervous phenomena, which bear witness to a saddening predisposition handed down from generation to generation." Several remarkable histories are then related, illustrating the above quotation; these are well worthy of perusal, but I can only call attention to their value. Further on, Trousseau continues: "In many instances, on questioning an epileptic with reference to his antecedents, you will find in his father or in his mother, or sometimes in both, although this is assuredly much less common, the original traces of the disease, either epilepsy itself, or else

(12) Trousseau, Clinique de l'Hotel Dieu. T. II., Leçon XXXVIII, §4. (Translation mine, T. L.)

one of those affections of which it may be a transformation, and into which, it may itself be susceptible of being transformed, or again cerebral diseases, such as softening, hemorrhage, etc. In other cases, which are perhaps more frequent, these original traces of the *morbus comitialis* not being discoverable in the father or mother, they must be looked for among the ascending line, among the direct or collateral relatives by blood, among the paternal or maternal cousins and uncles and aunts. Hereditary transmission may, in these cases, have skipped a generation which may be completely spared, but the disease, at first latent in the parents, may show itself in them subsequently, after their children will have gone before in the order of morbid manifestations."

Writers on general pathology discuss this transmission of diseases by parent to offspring: *Monneret* (13) says that "it is in virtue of *the law of heredity*, that is to say, of a cause unknown in its essence, but completely demonstrated by a great number of facts, that morbid conditions are thus propagated, constituting the hereditary diseases." He concedes a "*direct heredity*, in which the father or the mother has supplied the germ of the malady. The preponderating influence of one generator over the other is often manifest ..... Some admit that both are endowed with the same power of transmission, which others, on the contrary, believe to be greater in the female, owing to the influence, which the fœtus must receive during intra uterine life. Thus, *Baillarger* states that insanity is more frequently transmitted by the mother, and particularly to her daughters, the proportion in excess being one-third."

I have had under close observation, for several years, the three family groups, whose *neuropathic history* I will now relate. I will premise by saying, that the names selected in each group are of course suppositious, and adopted simply for the sake of clearness.

FIRST GROUP.

Ann: Committed suicide in a fit of insanity; she left a son, *John*, and a daughter, *Catharine*.

(13) Monneret Path Gen. T. II., de l'Hérédité Pathologique. (Translation mine. T. L.)

John is eccentric; never succeeds; always entertains wild and extravagant business schemes: he had one son, who died a confirmed epileptic, and another son, who did not speak at all untill he reached the age of six years; to this day,—he is now a good sized boy—he is lazy about speaking. words appear to come to him with difficulty, his mind is not at all bright.

Catharine had one daughter who was epileptic, or hystero-epileptic; and another daughter, apparently perfectly healthy, whose husband is robust, his record being clear as far as nervous diseases are concerned; these people had a daughter, who, at three years, spoke as much and as fluently as any child of her age. One day, after ill treatment by the nurse, she suddenly lost her speech and remained dumb for nearly two years, when she gradually began to re-acquire the faculty of language. A brother of this little girl has a large, curiously elongated and narrow head; he is not specially intelligent.

SECOND GROUP.

Three brothers: Henry, Edward and Francis.

Henry: committed suicide; nothing else known about him.

Edward: noisy, blustering and impulsive; he married.

His oldest daughter had a son who died epileptic.

His oldest son was always eccentric; character very similar to that of the father; this son died of softening of the brain following cerebral hemorrhage; this son had a child subject to convulsions.

Edward had another daughter born a deaf mute.

Another son, who died epileptic.

Another son, decidedly eccentric, had a child subject to nocturnal convulsions.

Another son, whose intellectual capacity is very limited.

And several other children, who, to say the least, are odd and different from other people.

Francis was very similar to Edward in disposition; he had one son, a drunkard, and of feeble intellect: And other children, in all of whom some mental peculiarity is quite evident.

THIRD GROUP.

Richard: died insane; he had
a daughter, who died insane, and
a son, John, who died suddenly, at an advanced age—(the cause of death is, at the present time, unknown.)

John had a large family: his oldest child, an officer in the British navy, died insane; he was attacked by insanity, on learning the death of the lady, to whom he was engaged to be married.

A daughter became insane, after having been crossed in love.

Another daughter is still living, aged over eighty years; she has never manifested any special tendency to nervous troubles; but her son was always odd; her daughter died of cerebral hemorrhage; this daughter had one son, who died of epilepsy. (It should be said, however, that the father of this boy became insane some years before his death.)

Another of *John's* daughters was insane.

Another of his sons, *Frederick* (in youth an officer in the British army), was always of an excitable temperament; he died of cerebral hemorrhage; he was twice married; by his first wife he had a daughter and two sons; two of the sons of this daughter died inebriates.

Of *Frederick's* two sons—one drank to excess, he became insane—he had several children, of whom the two oldest were always somewhat peculiar; a third died of convulsions; a fourth was hydrocephalic, had congenital hydrorachis and died of convulsions.

Frederick's other son by his first wife—we will call him *James*—was of a highly nervous, sensitive temperament; he was endowed with fine sentiments of honor. His conscientious convictions were profound, he was a firm friend, there was neither guile nor malice in his nature, he allowed himself to hate no one, for he was deeply and sincerely religious; in fact, his faith and his joys seemed to be not of this world—perhaps he might have reminded one of the description which Carlyle gives of his father, whom he styles *grimly religious*, were it not for the fact that this gentleman humbly abstained

from judging others by the rigid standard he had erected for himself.

He had a son, who had a convulsion in infancy, and who, from his adolescent years, has been subject to attacks of violent sick-headache This son married twice; two of his children by his first wife had convulsions—(it should be said that on this first wife's side, her paternal grandfather died of apoplexy—her paternal uncle died insane, and her father had convulsions in childhood).

Another son of *James* was subject to convulsions in early life.

It will be remembered that *Frederick* married twice. By his second wife he had a son who, after some form of cerebral trouble, is now threatened with locomotor ataxia; he also had another son who drank to excess, and died of an obscure form of brain disease.

These three groups are certainly very remarkable; they have been a subject of fascinating study to me for a long time. In any one of the three, any particular pathological fact, viewed isolatedly, might be difficult of comprehension; but, with the key in hand, how clear each circumstance becomes! How readily each link takes its place in the chain!

In the above histories, *drunkenness* is mentioned in connection with the heredity of cerebral disorders; this will excite no surprise, for does not Horace tell us that drunkards beget drunkards?

We read in Proctor that "The liking for strong drink, as is too-well known, is often transmitted. It is remarked by Dr. Howe that 'the children of drunkards are deficient in bodily and vital energy, and are predisposed by their very organization to have cravings for alcoholic stimulants. If they pursue the course of their fathers, which they have more temptation to follow and less power to avoid than the children of the temperate, they add to their hereditary weakness and increase the tendency to idiocy or insanity in their constitution, and this they leave to their children after them.'..... All who are acquainted with the facts must agree that in some cases of inherited craving for alcoholic stimulants, the responsibility of

those who have failed and fallen in the struggle has been but small. 'The fathers have eaten sour grapes, and the children's teeth are set on edge.'" (14).

In the printed defence of the New York State Inebriate Asylum, we see that when the Institution was established (15): "The diseased condition of the inebriate had long been recognized."..... Esquirol admitted "the existence of a disordered condition of the system which leads certain individuals to the abuse of fermented drinks."

Proctor says, in his essay, from which I have already quoted: "A portion of the Jewish system of legislature was based on a recognition of the law that children inherit the bodily qualities of the parents. The Greeks noted the same fact. Among the Spartans, indeed, a system of selection from among new-born children prevailed ... Among the Romans we find certain families described by their physical characteristics, as the *Nasones* or Big-nosed, the *Labeones* or Thick lipped, the *Capitones* or Big-headed, the *Buccones* or Swollen-cheeked .... Peculiarities of structure have a double interest as illustrating both variation and persistence. We usually find them introduced without any apparent cause into a family, and afterwards they remain as hereditary traits .... Hare-lip, albinism, halting and other pecularities commonly reappear for four or five generations, and are seldom altogether eradicated in less than ten or twelve .... Of constitutional peculiarities those affecting the nervous system are most frequently transmitted .... Stammering has been transmitted through as many as five generations. The same has been noticed of peculiarities of vision .... Deafness and blindness are not commonly hereditary where the parents have lost sight or hearing either by accident or through illness .... but persons born either blind or deaf frequently, if not commonly transmit the defect to some at least among their offspring. Similar remarks apply to deaf-mutism, etc. ... Certain mental qualities, memory, for instance, have been transmitted in some cases (16). Insanity is not always demonstrably hereditary. Esquirol found among 1375 lunatics,

(14) Hereditary Traits——R. A. PROCTOR.
(15) Transactions of the Medical Society of the State of New York: 1881.
(16) In the House of Brunswick, for instance: See Life of George IV, by Percy gerald. (T. L.)

337 unquestionable instances of hereditary transmission. Guislain, and others, regard hereditary lunacy as including, roughly, one fourth of the cases of insanity."

Griesinger states (17): "That in the greater number of cases of insanity, a hereditary predisposition lies at the bottom of the malady.... Congenital disposition to insanity is more frequent where marriages always take place amongst a limited circle of families, or else in the same families. On the other hand the transmission is diminished by constant crossing with strange blood. We do well not to conceive of a family predisposition to mental diseases as limited to these alone, but rather to consider it as a disposition to serious cerebral and nervous diseases generally."

If we take up, almost at random, any work treating of cerebral or spinal pathology, we are astonished upon making the discovery, even upon cursory examination, how great is the number of diseases of the nervous sytem, in which heredity is assigned as a cause.

Thus, the following list may be gleaned from Rosenthal (18): Tubercular meningitis, cerebral apoplexy, hydrocephalus, encephalitis, cerebral atrophy and hypertrophy, ataxia, infantile spinal paralysis, progressive muscular atrophy, hysteria, epilepsy, chorea magna and minor, writer's cramp and stuttering.

Besides the foregoing, Putzel (19) mentions trigeminal neuralgia and sciatica as being also attributable to heredity. As indicative of the potency of this factor in the production of epilepsy, although he states that "its frequency is variously estimated by different authorities," he quotes Delasiauve as having established a neuropathic tendency in "a little less than ten per cent." of the cases examined. Reynolds finds the proportion to be 31 per cent. "In 306 of Echeverria's cases, 80 had a neuropathic family history." From his own observations, Putzel is led to adopt 23 per cent. as being the proportional number of epileptics, in the causation of whose malady heredity plays a part. Further on, Putzel adds:

(17) Mental Pathology and Therapeutics.

(18) Diseases of the Nervous System.—Rosenthal.

(19) Functional Nervous Diseases.—Putzel.

"Martin states that almost all the children of epileptics die during the first years of life. This is one reason why the disease is not transmitted more frequently, as it is to be presumed that a considerable proportion of these children would be similarly affected if they had lived until a more advanced age."

Some years ago, I read an exhaustive paper by Duchenne (de Boulogne) on *pseudo hypertrophic muscular paralysis.* (20). In this memoir, he says, that his personal observations reveal no indication of heredity, but that some facts collected in Germany, of which he affords instances, point to hereditary origin, in a manner which cannot be disputed. Doctor McLane Hamilton (21) states in connection with this same disease: "Beyond the question of heredity it is impossible to go in our search for causes. One or two cases, however, are mentioned by foreign observers, in which injury preceded the disease." He then gives a summary of Poore's table of examples of heredity, which is very curious indeed. He calls attention to the circumstance that this table establishes the hereditary influence as being transmitted only on the mother's side, "while the disease shows itself almost exclusively in the males."

Coming now to the question of syphilis, I quote the following remarks from Fournier (22): "Another point, of which I am convinced, is that children sprung from syphilitic ancestors present a decided predisposition to *affections of the nervous system.* A very large number, for example, die from *convulsions.* ..... Again, these same children are powerfully predisposed to *meningitis* ..... In its acute forms this meningitis of the children of syphilitic parents is almost invariably fatal. In its mild, progressive forms, it may spare the life, only to end most generally in a state of intellectual incapacity, bordering on imbecility or idiocy. You may believe that many children, backward, imbecile, or idiotic, are nothing else than the products of syphilitic heredity ..... It is, to my mind, no

(20) Archieves Générales de Médecine—Jan'y-May.

(21) Nervous Diseases.

(22) Syphilis and Marriage.—Fournier.

less evident that the hereditary syphilitic influence (even limited to the father alone) constitutes a predisposition to *hydrocephalus.*"

Trousseau directs attention "*to the direful results of marriage between blood relations upon the propagation of the species.*" Among other authorities on the subject, he gives Boudin, who reports Dr. S. M. Bemiss (then of Louisville now an honored member of our Association), as saying that among the offspring of 27 such marriages, he observed two children born blind and six others presenting various defects of vision. "Liebrich of Berlin, out of 59 patients suffering from pigmentary retinitis, observed 18 individuals who were also deaf and dumb; two others were idiots—one of these last, and nine of the former, were the issues of consanguineous marriages (23)."

It will suffice to add, that Trousseau, after mentioning the liability to scrofula and turbercle, gives the following list of physical or intellectual infirmities which follow in the wake of marriages between blood relatievs; tendency to supernumerary fingers or toes, congenital hydrorachis, club-foot, hair-lip, retarded dentition. albinism, diseases of the organs of vision, and particularly, pigmentary retinitis, in which the opthalmoscope reveals grave lesions of the choroid and optic nerve, deaf-dumbness, idiotism, epilepsy and insanity.

I am acquainted with an old lady in this city from whom a friend was endeavoring to obtain a refusal of consent to the contemplated marriage of her grand-daughter to a first cousin. Every objection was urged, but the unvarying reply was: I would much rather see the child marry her cousin, than have her wedded, *to a stick of drift wood*, which has floated down stream, from God knows where.

Such people have no right to be surprised when, in due course, they find themselves surrounded by descendants resembling the effete Bourbons of Spain, of whom we read, that they were obliged to seek their wives from among the blooming princesses of Germany, in order to ward off the utter decay of their race (24).

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(23) Trousseau. Op. Cit.

(24) Monneret. Path. Int. T. I.

As an inevitable corollary to the preceding remarks upon the hereditary transmission of nervous diseases, we are led to that delicate ground which is hedged about by the *question of responsibility.* One, which is *always* important *to ourselves*; *often* of inestimable value *to our fellow-man,* who may be accused justly or unjustly, and whose life may be at stake; and to *society,* whose suspicions may have been wrongfully aroused, or which may be a victim requiring redress.

As an instance of the difficulties that are not unfrequently met with in these circumstances, a brief review of the *case of Guiteau,* considered in his hereditary antecedents, may not be out of place. The statements below are condensed from an article which appeared in a recent number of the MEDICAL JOURNAL of this city (25).

Guiteau's paternal grandfather was a physician of intense religious feeling. His father was a religious fanatic, devoted to free love socialistic teaching—he died of a disease attended with delirium—he was considered at least partially insane by several persons who knew him well; others, however, thought that he was only eccentric.

A paternal uncle of Guiteau died insane; a second was a drunkard and finally an imbecile; one paternal aunt, who died of consumption, had an insane daughter, her husband having also been insane. Another paternal aunt, concerning whom there was some evidence of insanity, had an insane son. Guiteau's mother, at the time of his birth, had been confined to her bed for some time with a disease attended with marked cerebral symptoms, for which her head had been shaved, and her two children born in later life died at the ages respectively of two years and twenty months. His only sister, after her evidence in court, had an attack of *petit mal;* in earlier life she had had puerperal mania. Guiteau had no serious injury or accident other than a severe blow on the upper and posterior portion of the left side of the frontal bone, corresponding to which there remains a scar." It is unnecessary to rehearse the vicissitudes and vagaries of his life; it will be remem-

(25) New Orleans Med. and Surg. Jour. April 1882. The case of Guiteau, by Chas. F. Folsom, M. D.

bered, however, that the Oneida community charged him with masturbation.

Doctor Folsom, from whose article the foregoing extract has been taken, then makes a careful study of the whole subject; this cannot be detailed here, but, as a conclusion, he inclines to the belief that Guiteau's mental condition at the time of the trial indicated responsibility, but that at the time of the murder he had the extraordinary delusion that the political opponents of General Garfield and finally the country would approve of his act and make him a hero. That he was undoubtedly of peculiarly constituted mind, the following statement made by himself bears witness: "*I claim*, said he, *that I am in the employ of Jesus Christ & Co., the very ablest and strongest firm in the Universe*," *etc.*

Was this blasphemy? was it impudence? or was it an evidence of a curiously interwoven strand of cerebral disease transmitted through heredity, which, in view of the Guiteau neuropathic family history related above, does not seem to be an impossibility?

These questions are thrown out simply as food for reflection, for this is neither the time nor the place to answer the same.

I need hardly recall the well-known fact that in certain notorious classes of society crime is hereditary.

An author, from whom (26) I have already quoted, says in this connection: "Hereditary predisposition to theft, murder and suicide, has been demonstrated in several cases. But the world at large is naturally indisposed to recognize congenital tendency to crime as largely diminishing responsibility for offenses or attempted offenses of this kind. So far as the general interests of the community are concerned, the demonstrated fact that a thief or murderer has *inherited* his unpleasant tendency should be a *raison de plus* for preventing the tendency from being transmitted any further. In stamping out the hereditary ruffian or rascal by life imprisonment, we not only get rid of the "grown serpent," but of the worm which

Hath nature that in time would venom breed.

(26) Proctor, op. cit.

An illustration of the policy at least (we do not say the justice) of preventive measures in such instances, is shown in the case of a young woman of remarkably depraved character, who infested, some seventy years since, the district of the Upper Hudson. At one stage of her youth, she narrowly, and somewhat unfortunately, escaped death. Surviving, however, she bore many children, who in turn had large families, insomuch that there are now some eighty direct descendants, of whom one-fourth are convicted criminals, while the rest are drunkards, lunatics, paupers and otherwise undesirable members of the community." Can facts like the foregoing be ascribed to fatality? We cannot admit such an explanation, for fatality is an unmeaning word. Are they the result of circumstances analogous to those which, during seven successive generations, caused the office of public executioner in France to be handed down in the same family? or should not the origin of the sustained depravity, which shows itself under the form of a tendency to the commission of crime transmitted hereditarily, be sought for in the nervous system?

Jurists doubtless weigh carefully facts like the above, but is their judgment always to be relied upon implicitly in the matter of criminal responsibility?

It occasions no surprise to see persons outside of our profession constantly at sea upon such subjects, but to ourselves it is certainly suggestive to read the conflicting opinions of professional experts in almost any given case.

In truth, the question of *responsibility* is one of the most momentous with which the physician can ever have to deal.

Upon his judgment, irreparable wrong may be prevented or committed. He cannot be too deeply impressed with the fact, "that in human practice and the ordinary affairs of every day life, there is nothing that differs so much from one man as another man (since we each carry in us the weight of hereditary influences, influences of race and education accumulated through long periods of time, and the shades of sensibility of each of us are as different as the details of our persons). (27)

(27) J. LUYS, op. cit.

This question of responsibility is far reaching; its ramifications are found to extend deeper and deeper, the more we pursue our investigations. Thus the subject of "*Apoplectics—their mental state—their degree of responsibility and their civil capacity*," formed, not long since, the subject of a lecture delived at *La Salpetrière* Hospital in Paris, by Legrand du Saulle (28). I regret that, owing to the necessity of not giving undue length to this paper, I find myself deprived of the pleasure of furnishing a summary of this remarkable discourse.

With regard to the influence exerted by, or the stress to be laid upon the absence of reason, Briand and Chaudé (30) express the following views: "The unfortunate being deprived of reason is liable to no penalty and is beyond the reach of both criminal and civil law. There is neither crime nor offense, according to Article 64 of the Penal Code, when the party arraigned was in a condition of dementia at the time an act was committed, or when he was constrained thereto by an irresistible force .. ... It is essential to establish the mental condition of the party at the time of commission—dementia must have existed at that instant. A fit of insanity, which has occurred in the past, is doubtless worthy of being taken into consideration, but it does not exclude culpability. Several former attacks are still more deserving of attention, etc..... The term *dementia*, employed in Article 64, must be taken in its broadest acception, and be made to include every variety of lesion of the intellectual faculties ..... Care must be had however, not to confound dementia with passion, for this last, however violent it may be, deprives man neither of reason, nor of moral liberty, and this suffices to constitute culpability. ..... In epileptics, moral liberty is completely suspended during the attack of the malady: An epileptic, who commits homicide during a fit of epilepsy, has not had any criminal intent, and he can therefore be under no responsibility; (Cassation, 8 Brumaire, year XIII.) The foregoing ruling is not thought to be applicable to hysteria.

(28) Gazette des Hopitaux; June 21st, 1881.

(29) Médecine Légale. (Translation mine, T. L.)

We read in Woodman and Tidy (24): "*Acts committed in the delirium of disease or accident,* if criminal, would fall into the same category as the acts of lunatics. In the case of suicide, this is generally met, by the verdict of temporary insanity, in the Coroner's court, suicide, although a criminal act, is not held to be a legal proof of insanity .... We cannot conceal our conviction that legal opinion and practice, as regards the responsibility of criminals for their acts, are not in accord with the teachings of medical science. Nor can we deny that medical witnesses themselves are greatly to blame for this discrepancy. Instead of a clear statement of the facts of the case, and a clear expression of scientific opinions, they have often jumbled together facts and opinions, and treated the courts to exhibitions of metaphysical subleties equally foreign to law and common sense, or to still more painful exhibitions of their own ignorance." After analyzing various opinions, the authors, from whom the foregoing quotation is made, continue as follows: "If we analyze these opinions, they come to this, that the majority of our judges consider a man with a fractional intelligence is to be treated precisely (as regards the acts committed by him) as if his intellectual powers were in their integrity, or, to put the matter in a more familiar form, that a lunatic, who may have less than half his intellectual powers in a healthy state, is to be punished for the acts he commits, precisely as if he had the use of the whole of his brain, unless the witnesses and especially the medical witnesses are prepared to state that at a particular moment he did not know right from wrong."

III.

Gentlemen, our learned fellow-member, Dr. dell'Orto, a few evenings since aptly reminded us of the aphorism of Hippocrates: "*Art is long, but life is short.*"

The length of this paper is such, that I must apologize for having taken up so much of your attention; especially, as

(24) Forensic Medicine.

under more competent treatment, the subject selected might have been handled to greater advantage.

Thanking you for your patience to-night, I shall feel happy if my humble effort succeeds in attracting your meditations towards the question discussed, the importance of which is *immense*, as I have already mentioned on the authority of Trousseau.

Yellow Fever, or "Yellow Jaundice" in New Orleans in 1882. Disputed Case of Louis (or Ludwig) Deschler.

BY STANFORD E. CHAILLÉ, M. D.

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[Read August 5th, 1882, before the New Orleans Medical and Surgical Association and published at its request.]

Louisiana has only two officers whose duty it is to study and to teach pathological anatomy. These are the accomplished microscopist, Dr. H. D Schmidt of our Charity Hospital, and myself. The official report of the former, upon the post-mortem examination of Deschler, was published in the August No. of the New Orleans MEDICAL AND SURGICAL JOURNAL, and as I also, witnessed the same post-mortem, I shall now contribute, as a pathological anatomist, the facts observed and the views entertained by me.

This contribution is prompted by the following facts: Dr. Jones, President State Board of Health, who, like Dr. Schmidt and myself witnessed only the post-mortem, assigns or suggests four causes for the death, viz: Alcholism, Bright's disease, Jaundice and Malarial Fever.* Dr. Chas. E. Schuppert, a graduate of 1879, who examined the patient very casually on July 12th, the first day of his last sickness, and more carefully, but, as there is good reason to believe, without taking the pulse or temperature, in a dark room, and for the second and last time on the 13th, diagnosed gastro-duodenitis and jaundice. †

*See Aug. No. N. O. Medical and Surgical Journal, pp. 154-5. Wherein will also be found the decisive report of Dr. Miles, House Surgeon of the Charity Hospital.

†See N. O. Picayune of July 19th, 1882.

Farther, the proceedings of the State Board of Health, as published in the *Times-Democrat* of July 21st, reported that one member denounced the National Board of Health as follows: "The appalling spectre of *yellow jaundice*, if not of yellow fever, had to be thrown upon the Congressional camera. If that did not accomplish the object, the only hope left would be a recurrence of a Plaquemines rice fever epidemic." And, finally, the *Picayune*, abetted by the local press generally, very broadly intimated, that Drs. Jones and Schuppert, alone of the eleven physicians who examined the case alive or dead, understood their business, in as much as it was "a pronounced case of alcoholism and jaundice" and that the rumors that it was yellow fever were "unfounded."*

It is worthy the consideration of the medical profession, whether the rumors originating from the conscientious opinions of all of the eleven physicians, except Drs. Jones and Schuppert, were in truth unfounded. It should not be forgotten that among the nine, who differed from these two, there were five State officers, namely, the House Surgeon, Assistant House Surgeon, Pathological Anatomist, physician attending the Ward and the Chairman of the Board of Administrators of the Chairity Hospital. With these officers the representative of the National Board of Health concurred to the extent, that the post-mortem gave "strong though not conclusive evidences of yellow fever." However, before the corpse was seen, from which this opinion was derived, four of these State officers had already diagnosed yellow fever. It should also be remembered, that out of the eleven physicians, four of them, in addition to Dr. Schuppert, saw the man alive either on the 16th or 17th, or on both of these two last days of his sickness;† that these four (one being a graduate of 1880) concurred in the diagnosis of yellow fever; and that, as is well

*See Picayune of July 19th, 1882.

†Louis Deschler 31 years of age, an Alsatian by birth, and a brewer by trade, was admitted into the Charity Hospital at 9 A. M., Sunday July 16th, died Monday 12:30 P. M, and the post-mortem was made about 3:15 P. M. the same day. It was during this time that all of the eleven physicians, except Dr. Schuppert, saw the case. Therefore, of the total ten physicians who saw Deschler alive or dead on the two last decisive days, all, except Dr. Jones, President of the State Board, believed the death due to yellow fever.

known to all, the diagnostic evidences of this disease are far more decisive on the two last than on the two first days of its existence. All yellow fever experts are familiar with the great frequency of such occurrences as the very recent one, where Johannes Stroh, who died August 1st, of unquestionable yellow fever, as unanimously declared by eight physicians (three of them being members of the State Board), was not even suspected by his attending physician with having this disease until the very morning of the day of Stroh's death, although he had been visited by his physician July 30 and 31st, as well as on August 1st.

On the one hand, there were, as already stated, nine physicians who believed that Deschler died of yellow fever, and on the other hand, there were two who suggested five other causes, namely: alcoholism, Brights disease, malarial fever, (of course, hæmorrhagic malarial fever), jaundice and gastro-duodenitis.

Was Deschler's death due to any one or to a complication of several or of all of these five causes?

He was represented by many to have been an habitual and excessive drinker, and especially, of beer, as he was a brewer, but some few of those, who knew him well, averred that he was a very moderate drinker of beer. All the evidence, I have obtained, is to the effect that he was a most excellent and desirable workman, which is inconsistent with excessive intemperance. In any case, his liver was as smooth as an egg, entirely free from granulations, hobnail tuberosities, cirrhosis and any evidence of the increased fibroid tissue so characteristic of alcoholism. He died on the sixth day of his sickness, with a temperature of 109° F. and without symptoms of delirium-tremens, the only result of alcoholism which kills so quickly. The frequency with which yellow fever attacks the intemperate is well known.

Did Deschler die of Bright's disease? I examined the kidneys macroscopically only, and found them large, as usual in yellow fever, from blood engorgment, but their structure appeared so normal that my suspicion of Bright's disease was not even aroused. There was no dropsy or even œdema, nor has any evidence been given of albuminuria and of uræ-

mia, prior to his admission, on the 16th, to the Charity Hospital.

Yellow fever is often attended, as in this case, with forty-eight hours suppression, the passage of a few ounces of highly colored urine, loaded from one-third to one-half with albumen, uræmia, high temperature and death; if Bright's disease ever thus kills I have never seen it. So far as the microscopic examination of the kidneys is concerned, Dr. Schmidt, who made it with great care, states as follows: "The kidneys at the death of the patient, were in the initial stage of degeneration, such as I have described in my treatise on Yellow Fever." "The declaration that Deschler died from Bright's disease, yet with an intensely congested brain, absence of dropsy, etc., appears to me not only unscientific but preposterous. Bright's disease is, as everybody knows, a chronic affection, in which the brain towards the close (death) is anæmic and œdematous."

Did Deschler die of hemorrhagic malarial fever? The liver as well as the spleen were free from the characteristic pigmentary deposits and the spleen was firm, normal in appearance and small in size for a man so large and robust.

In April, 1879, when fresh from the study of the epidemic of 1878, Dr. Jones, Professor of Chemistry and now President State Board, presented, in the Proceedings of the Louisiana State Medical Society, his "general conclusions as to the nature of yellow fever, which I (Dr. J.) have drawn from my original investigations during the past twenty-three years." Concerning the liver and spleen he states, p. 159, the following well known facts, confirmatory of my experience since 1851 and also of everybody's recorded evidence. "In malarial fever, both these organs are loaded with the altered blood corpuscles and with the pigment granules resulting from the alterations of the colored corpuscles, whilst neither the spleen nor the liver in yellow fever afford any evidence of alterations of the colored blood corpuscles." He describes the yellow fever spleen, "as a general rule but slightly enlarged. In many cases normal in size and appearance." On the other hand, the malarial spleen is described as "enlarged, softened" and "in many cases the spleen is so soft that it ruptures when the attempt is made to remove it from the cavity."

In addition to the significant facts stated concerning the spleen and liver, it is equally as significant, that while there were extravasations of blood from the gums and stomach, there was no blood in the urine. The hæmaturia, so frequent in hemorrhagic malarial fever and so important in the differential diagnosis, was entirely wanting.

Did Deschler die of gastro-duodenitis and jaundice resulting therefrom? Gastro-duodenitis does not destroy life in less than six days, with hemorrhagic lesions, suppression of urine, albuminuria, uræmia, and a temperature of 109° F. The jaundice, which frequently results from gastro-duodenitis, is due to biliary obstruction, which, according to my own experience and to all authorities, always produces discoloration of the liver-tissue with bile pigments. The liver-tissue was as entirely free from bile pigments as from the slate colored deposits of malarial fever. Further, in jaundice from obstruction, the gall bladder is habitually distended with bile, but, in this case the gall bladder, while not empty, was flaccid.

If the jaundice was not due, as it certainly was not, to obstruction, whether by gastro-duodenitis or by cirrhosis or by any other cause, then, to what was it due? Frerichs, Murchison and all authorities agree that, when jaundice is not caused by biliary obstruction, it is due generally to morbid changes of the blood, such as dissolution of its red corpuscles, and that these changes result from specific poisons, especially from specific fevers and more especially from yellow fever. Jaundice may occur in malarial fever, but I have yet to learn that malarial fever with jaundice ever destroys life and yet fails totally to discolor the liver, either with biliary or malarial pigment. I have never either seen or read of any such case, and Dr. Jones' "original investigations" to 1879 justify the presumption, that he never had. On the other hand, uncomplicated yellow fever does present livers free from these discolorations. It also deserves notice, that of the various diseases (other than yellow fever) which produce jaundice independent of biliary obstruction, notable hepatic lesions, not present in this case, occur, such as atrophy, softening, etc.

Although no one of the five causes suggested suffices alone to account for the death, yet it deserves consideration, whether a combination of these causes might not suffice. The evidence on this view will be adequately completed, it is believed, in now considering whether Deschler died of yellow fever.

The integument struck me as of an intenser and brighter yellow than usual in yellow fever. However, La Roche correctly teaches that the shade of yellow, in different persons and in different epidemics, varies greatly. Dr. Jones reports, in this case, that the "exterior, [was] *golden* colored." On p. 151 of his "original investigations" he states, as to the exterior, that the "skin of face and upper portions of trunk [are] of a *golden* yellow color." Many authors use, in their descriptions, the same words. Dr. Jones also reports, that there was "no marked mottling of the dependent portions" of Deschler's body; in truth, the mottling was well marked to others, but not as excessive as usual, which was not surprising, since the body was examined with unusual promptness, that is, within three hours after death, on a cool pleasant day, when the maximum temperature was 28° and the minimum 76 5°.

The eyes of the corpse were jaundiced, and failed as usual to present the marked capillary injection testified to as existing in life. The tongue had a raw, glazed look at its tip and edges, confirming the evidence that it had presented, in life, the appearance usual in yellow fever.

The gums after death were not red and spongy in Deschler's case, nor in the two undisputed cases, thus far in 1882, of either Forbes or Stroh,* nor usually after death, but there was evidence of hemorrhage from the gums, which in life were said to have been swollen, red and bleeding.

The mucous membrane of the stomach and the omentum were much injected from blood-engorgement. The few ounces of neutral fluid in the stomach had a dark purplish color, the latter hue being undoubtedly due to blood. It also contained some bile, inappreciable to the eye, but giving a green reaction with nitric acid. La Roche calls attention to such discolored

* Forbes, an imported and the first case, died June 26th, Deschler July, 17th and Stroh August 1st, 1882.

fluids, as having been frequently observed as precursors of veritable black vomit, which this fluid certainly was not. Bile, but usually in abundance, characterizes the vomit of hemorrhagic malarial fever; on the other hand, Dr. Jones is not alone in stating that bile is not always but "*almost* always absent from the black vomit of yellow fever" (p. 156, Op. cit.).

The heart, kidneys, bladder and brain presented ecchymotic spots or patches. These ecchymoses, with the extravasations of blood from the gums and stomach, and with the high temperature, which exceeded in the liver 107° three hours after death, stamp the disease as, beyond all question, a hemorrhagic fever.

There was a very little urine in the dead bladder. Nitric acid and heat coagulated fully one-half of it. As is not infrequent in yellow fever, and as is more frequent in bilious malarial fever, it contained some bile. Dr. Layton and myself both observed several broken granular casts, but neither in the casts, nor in the fluid, were there any blood corpuscles. However, on p. 142 of the publication already cited, Dr. Jones, differentiating hemorrhagic malarial from yellow fever, taught, that, "as a general rule, albumen is absent from the urine in malarial fever, and when present, as in malarial hæmaturia, it is accompanied with blood corpuscles and with casts of the tubuli uriniferi containing blood corpuscles." (See also p. 161.)

While the spleen did contra-indicate malarial fever, it did not contra-indicate yellow fever. While the liver contra-indicated malarial fever, alcoholism and jaundice by obstruction, it did not contra-indicate yellow fever. It was large, from blood engorgement, and of normal color, except that there were a few small yellowish patches by the side of the broad ligament. Had the entire liver been of the color of these patches, it would have been describable as the characteristic café au lait liver of Louis. Under the microscope the liver cells, in the sections of the small portion of the liver examined by me, were well dotted with minute fatty granules, but did not present the appearance, frequent in yellow fever, of gross fatty infil-

tration.† I have preserved specimens of the liver, of the urine and of the stomach-fluid for the examination of experts.

The very important fact remains to be stated, that Deschler's three most intimate friends, Georger, Stefan and Betzer,† fellow-countrymen who knew him, the first in Alsace and the three since his arrival in New Orleans, all testify positively that he was not acclimated and did not have yellow fever in 1878. His special friend Georger, a native and resident of the same village, came to New Orleans in the same steamship with Deschler, in October, 1872.

As to the cause of death, the following pregnant facts seem certain: Deschler was unacclimated; he did not cease work until he was found sick on Wednesday morning, July 12th., and he died a little after mid-day on the following Monday, July 17th; he had evidences of jaundice on the second day of his sickness as testified by Drs. Schuppert and Fisher (the latter saw him only for a moment accidentally) and Mr. Maus, foreman of the brewery;‡ he suffered with great epigastric tenderness; he had a hemorrhagic fever of some kind; his eyes were injected; his tongue was red at its tip and edges; his gums were injected, swollen and hemorrhagic; his omentum and stomach were gorged with blood, and the latter contained after death a bloody fluid; ecchymoses were found upon or within his heart, kidneys, bladder and brain; there was suppression of urine for forty-eight hours, and the little urine finally secreted was highly albuminous; he died with symptoms of uræmic poisoning, and with a sudden rise of temperature from 105° at 9:30, A.M., to 109° at 12:30, P.M., when he died.

The usual significance of these symptoms and lesions is well known. It is also well known, that such high temperatures occur in few diseases; that a sudden rise of temperature before

*Dr. Schmidt, whose authority in microscopy I defer to, and who examined th eliver more thoroughly than I did, states: "While the organ still showed, in some places, the traces of portal congestion, it presented, in others, the characteristic appearance of commencing fatty infiltration."

†The first now at Weckerling's and the last two at Auer's Brewery.

‡Out of 385 cases recorded by Blair, eight were jaundice on the first day, sixteen on the second, etc. See La Roche on Yellow Fever, p. 231, vol. I.

death, always remarkable, occurs in still fewer diseases, but not in any of the five suggested diseases; and that both peculiarities have been long recognized, the former as a frequent, and the latter as an occasional characteristic of fatal yellow fever. Dr. Jones, on pp. 139, 140, 145, etc., of his "original investigations" calls special attention to this symptom as one of those differentiating malarial from yellow fever. He records one case, where, as in this case, the temperature, before death, suddenly ascended to "109° on 6th day." He teaches, that in malarial fever, the temperature does not exced 107.5° and that this occurs only during the paroxysm. Wunderlich's high authority is that in malarial diseases the thermometer is "only exceptionally a *little* higher than 106.7°," and in his work of 1868 he called attention to the sudden rise in fatal cases of yellow fever.

These facts can leave little doubt, in the mind of any unprejudiced physician, that Deschler died of yellow fever. Neither jaundice, nor gastro-duodenitis nor alcoholism, nor albuminuria, nor malarial fever present the symptoms and lesions seen in his case, and there is little reason to believe that any combination of these diseases could produce the symptoms and lesions observed on July 16th and 17th. However, there is no incompatibility between yellow fever and any of these diseases, so that, even if it could be proved that jaundice, or any one or more of the five causes had existed prior even to August 12th, it could not be denied that yellow fever might, none the less, have been, and most probably was, the immediate cause of death.

Whatever some doctors, the newspapers, the public and politicians might report, I have had perfect confidence that the vast majority of the medical profession would, when all the facts were known, unhesitatingly decide, that the representative of the National Board was thoroughly justifiable in declaring that the post-mortem gave strong evidence of yellow fever, confirmatory of the diagnosis made by all four of the physicians who last saw Deschler alive.

The only fear felt has been, that many physicians might be surprised that the post-mortem evidence was not considered

"conclusive." The reasons were as follows: All the facts now stated were not known on the night of July 17th, when this opinion was formed. The pathological anatomy of yellow fever still lacks pathognomonic lesions, and the cases are certainly very few where, when the disease is not prevailing, the pathological anatomist, without recourse to the clinical history, could pronounce the lesions conclusive. In this case, two of the most important lesions, the gastric and hepatic, though compatible with yellow fever, were none the less, not decisively characteristic. While these facts justified a guarded opinion, they were insufficient to prevent the case from being considered a very suspicious one, as it *officially* became, and from necessitating all sanitary precautions, justified in undoubted yellow fever.

It deserves the consideration of those who believe, as I do, that yellow fever is communicable, that Deschler's case could not be traced to any such source and that no evil results have apparently followed, within the three weeks which have now elapsed since his death.* To this objection to the diagnosis of yellow fever, the only answer is, that the sporadic, untraceable and fruitless cases of yellow fever have, at all times and in all places, proved, heretofore, more numerous even than those which could be traced to a communicable source. Hence, many wise and experenced physicians still insist that yellow fever is not communicable. However, trichinosis, helminthiasis of all kinds, diphtheria, typhoid fever and cholera are all communicable diseases, as, in intenser degree, are gonorrhœa, measles, searlet fever and small pox; yet, no one now doubts the communicability of any of these, because he may find it impossible to trace to their source many cases of even the four last named diseases, which all admit are communicable in far higher degree than yellow fever is believed to be. In any case, no true lover of science will permit the full and faithful record of facts to be prejudiced by any theory whatever.

*Duchler lived and apparently contracted his diseases some three miles distant from the first imported case, (Forbes] and also from the first undisputed local case (Stroh).

In concluding this report of Deschler's case, I fully concur in the conclusion of the Hospital Pathologist, Dr. Schmidt, and testify, as a Prof. of Pathological Anatomy, that, while I cannot declare it *impossible* that Deschler may not have died from a combination of causes exclusive of yellow fever, I have, none the less, often seen such lesions in this disease, but never in any other disease or combination of diseases.

It is worth nothing, that this case has secured a record in the U. S. House of Representatives. Our newspapers of August 5th reported that on the 4th the Hon. S. S. Cox, of New York, "referred to an article in a New Orleans paper, to show that the National Board of Health had attempted to get up a yellow fever excitement over a case, which afterwards turned out to be *a case of jaundice*, and said that it was by such means that the Board sought to perpetuate its salaries and its inutility." How much more monstrous the misrepresention might have been, if the representative of the National Board had not had the evidence and the concurring opinion of five State officers and of three other physicians, can be readily imagined. It is plain, that whoever would testify to an unwelcome truth must risk the insult of having even the honesty of his intention questioned.

ADDENDA.

The following additional facts deserve record. The very first information given the representative of the National Board was received a little before 3, P. M., Monday, July 17th, in the following letter:

"CHARITY HOSPITAL, July 17th, 1882.

Dr. S. E. CHAILLÉ, Supvg. Inspr. N. B. H.:

Dear Dr.—A case of *yellow fever* died in Ward 24 this evening at one o'clock. [This was subsequently corrected to half past 12 o'clock.] We will give you the history of the case. The body lies exposed for your examination at any time this evening.

Very respectfully,
A. B. MILES, M. D.," House Surgeon.

Not only is this official notification from a State officer silent about "jaundice," but, the certificate of death, the registers of the Charity Hospital and of the Board of Health, all controlled

exclusively by State Officers, fail to say a word about "yellow jaundice," since they all unite in the same decisive official record that the case was "*yellow fever.*" It is thus manifest that, if a case of "yellow jaundice" was manufactured into a case of "yellow fever," this great scientific feat was effected earlier and more decisively by the State officers of the Charity Hospital, than by the representative of the National Board. If this feat was reversed, it has been made sufficiently clear who did it.

In addition, the Chairman of the Board of Administrators of the Charity Hospital, a distinguished graduate (D. M. P.) of Paris, and a native resident of this city, highly esteemed by all in and out of his profession, has written, in vindication of the truth, as follows:

"NEW ORLEANS, August 8th, 1882.

I witnessed Deschler's post mortem and Prof. Chaillé's microscopic and chemical examinations of the liver, urine and gastric fluid; and, I fully concur in his statements of the evidences thereof and of the conclusions therefrom, as presented in his paper, read August 5th, before the New Orleans Medical and Surgical Association.

THOMAS LAYTON, M. D."

Children are taught to "tell the truth and shame the devil," but experience brings at last the conviction, that one may do the former, as I have done, without accomplishing the latter. Hence, an experienced medical professor may be pardoned for warning his medical students at least, that truth has ceased, with the adults of this country, to prove a specific for bringing to shame the devils of ignorance, prejudice, self-interest and dishonesty.

Since correcting proof of the above, Dr. Chas. E. Schuppert has made the following statements. Several of Dechler's acquaintances say, that, before July 12th, he had been "treated for disease of the kidneys," that his "skin and eyes looked jaundiced" and that he had a spree on the 11th. Dr. Schuppert says, that he "noticed a pale yellow cast of his skin and conjunctival" on 12th, that on 13th he observed "some œdema" on his legs and "signs of an old ulcer" also "some febrile action," and that he saw him a third and last time on the 14th, "when there was no material change in his condition."

Perityphlitis.

Paper Read before the New Orleans Med. and Surg. Association, May 13, 1882.

By J. P. Davidson, M. D.

Inflammation of the cæcum, limited to that part of the large intestine, has received the appellation of typhlitis, tuphloenteritis or cæcitis; and when the inflammation is seated in the tissues overlying and surrounding the cæcum Perityphlitis. The terms are frequently used indiscriminately, but must be understood as applying essentially to those cases of intestinal disease in which there is perforative ulceration either of the walls of the cæcum or of the appendix vermiformis, and in which there is circumscribed suppuration in the vicinity of the cæcum, or sudden peritonitis.

Acute inflammation confined to the cæcum is not of frequent occurrence, but when it does occur the glands and follicles of the organ become inflamed and pass into an ulcerative condition. The ulcerative process may go on insidiously destroying the mucous membrane, penetrating to the submucous tela and to the peritoneal coat, causing either inflammation, lymphatic adhesions of the latter, or a fatal perforation of it. When agglutination takes place the morbid process may be limited to that condition.

The perforation in a majority of cases occurs in the vermiform appendix. According to Bamberger the appendix is the seat of ulceration in about four-fifths of fatal peritonitis, starting in the region of the cæcum.

"The causes of perityphlitis may be referred to the peculiar position of the cæcum as well as to other circumstances. It is attached to the muscles of the right lumbar region, and its sacculated pouch depends below the ileo-cæcal outlet, and, as all physiological anatomists observe, its contents have to be propelled against gravity." It will be readily conceived that this position facilitates its distention with fæcal matters through which irritation and inflammation of the lining membrane are gradually set up. It is also liable to be impacted with hard and indigestible articles of food, the stones of fruit and various foreign bodies.

The attack comes on in some instances quite suddenly with out any prodomic symptoms (Reynolds Sys. Med., Diseases of the Digestive, vol. iii, p. 306), while in others it is preceded by obstinate constipation, pain, tenderness in the right iliac region, over the cæcum, attacks of colicky pains and other abdominal disturbances of a general character. More frequently the immediate onset of the disease is ushered in by acute, lancinating pain in the right side of the abdomen, within a defined space corresponding to the situation of the cæcum, with nausea, vomiting and febrile movement. The pain is increased by motion, even by breathing, and by the extension of the right limb which for the most part is kept drawn up, and is aggravated in the highest degree by pressure along the inguinal region. Palpation will commonly reveal a distinct circumscribed swelling at the right iliac fossa, dull upon percussion when it is confined to the cæcum alone, but less so when the surrounding areolar tissue is involved in the inflammation. The swelling may extend across the abdomen to the umbilicus and when it does so, peritonitis is generally an accompaniment of the other pathological conditions.

Like other portions of the intestinal tube, the cæcum is liable to ulcerative perforation which may give rise to circumscribed or diffused acute peritonitis. If the perforation takes place in the posterior part of the bowel where it is attached without peritoneal covering to the iliac fascia, and this dense structure prevents the escape of pus, a deep-seated and irregular abscess is formed in a little time.

The escape into the general peritoneal cavity which occurs in cases of sudden rupture is followed by instantaneous peritonitis, rapid and fatal collapse. The secretion of pus at length most commonly passes through the cæcal parietes at the part uncovered by peritoneum, "as recorded by Duplay, Copland and others."

In some instances infiltration takes place in front of the iliacus internus and makes an exit near the anus, or it may reach the folds of the meso-colon, burrowing there and forming a sinus to be evacuated externally, as in examples cited by MM. Husson, Dance and Messiére. Op. cit.

Dupuytren knew of instances in which the infiltration reached as high as the right kidney, and so low down in the pelvis as to burrow between the bladder and the rectum.

If the encysted exudation escapes into one of the hollow abdominal viscera a complete cure may be effected, but death may ensue from pyæmia, or a subsequent rupture may occur of the encysted exudation into the free sack of the peritoneum. In this latter event the same symptoms follow as when the perforation of the cæcum, or the appendix vermiformis gives rise immediately to general peritonitis.

Usually it is impossible to ascertain the initial point of the urgent symptoms, whether in the cæcum on the vermiform appendix. In a doubtful case we may regard it as probable that the ulceration affects the appendix vermiformis, from the greater frequency of ulceration in that site. This diagnosis will be the more certain if the attack occurred suddenly and violently in the midst of health, while the opposing diagnosis will be based upon the fæcal infarction of the cæcum, which may be often recognized at the outset by the existence of a tumor, while also ulceration and perforation of the cæcum are almost always preceded by functional derangement of the alimentary canal, attacks of colic, and tenderness of the right iliac region.

In the milder cases of perityphlitis in which a circumscribed peritonitis takes place in that part overlying the cæcum, with a considerable amount of exudation without a rupture, or if one does occur without the escape of any quantity of the contents of the cæcum, cure may result either by the exudation becoming encysted and undergoing gradual absorption, or the cæcum and intestine may become permeable again.

It sometimes happens that the escape takes place among the tissues, forming an abcess with surrounding inflammation and induration. In this case the abcess is apt to enlarge rapidly, and may point externally near the groin, above Poupart's ligament, or seek an outlet in any one of the directions heretofore indicated.

The statistics of "typhlitis"—using this term as including all the morbid conditions above described, are not readily ascertainable. As regards the statistics of typhlitis relating to

perforation of the appendix vermiformis with fatal termination they establish very conclusively, that the disease occurs chiefly in early life, and more frequently in males than females.

The duration of perityphlitis varies very much, and is influenced by the character of the attack. When perforation takes place directly into the peritoneal sack, death speedily ensues, in the course certainly of from two to six days; life, however, may be prolonged when a circumscribed preritoneal abcess is formed for two or more weeks, and under very favoring conditions, indeed, it is possible that recoveries may take place. In those cases of perityphlitis in which abcess forms in the neighborhood of the cæcum, it is difficult to determine the probable duration of the case. Not unfrequently, when the abcess is discharged early, the patient recovers very soon. Sometimes, however, the case lingers for months or even years, with a succession of discharging abcesses.

The symptoms which attend typhlitis are chiefly those indicating acute peritonitis, or those of a local inflammation and suppuration, or a complication of both. In those cases in which sudden rupture takes place into the general peritoneum, it is needless to dwell on the character of the abdominal pain, tenderness and tympanitic condition of the abdomen which ensues, and all the evidences of immediate and fatal colapse.

In those cases of perityphlitis in which abcess forms in the areolar tissue surrounding the cæcum, there are at first, pain and tenderness in the cæcal region, with rigors and other symptoms incident to phlegmonous inflammation, and there is fullness and diffused tenderness on palpation. The symptoms, in fact, resemble those which arise in any case of suppurative inflammation, however induced, occupying any portion of the venter of the ileum.

Whenever the abcess dips downwards into the pelvis or is very deeply seated; the case becomes very obscure. When, however, the abscess inclines to point anteriorly a well defined hardness and fullness appears, gradually increasing until a hemispherical tumor is formed, over which the integuments

become discolored and œdematous, with evidences of fluctuation. Just at this stage the swelling may gradually subside and disappear, either from a discharge of the contents of the abcess into the intestinal canal, or it opens externally giving issue to a greater or less quantity of excessively fœtid pus, having occasionally a fœcal odor, or mixed with fœcal matter and bubbles of gas.

Sometimes abcesses discharging themselves externally close up and perfect recovery takes place. In other cases after apparent cure, new abcesses form elsewhere and result in continued fistulous openings or artificial arms.

"Typhlitis is liable to be confounded with many abdominal diseases or incidents of disease, with phlegmonous inflammation resulting from disease of the vertebra; renal calculus; circumscribed peritonitis taking place near the inguinal region; in the female with inflammation of the right ovary; from the laceration of the cyst of tubærian or ovarian pregnancy, or from the extension of inflammation from various pelvic organs, especially those of the female." Op. cit.

Again the local suppuration set up in so many cases of typhlitis and perityphlitis is liable to be confounded in some of its stages, with abcesses of other kinds which may find their way into the proximity of the cæcum, of which may be mentioned as most liable to be mistaken in this way, psoas abcesses, and those connected with the kidney and spinal canal.

The treatment of typhlitis may be summarized as consisting in those principles which guide the practitioner in the management of acute enteritis, and the treatment of localized suppuration.

Two main objects should be kept in view as well established —to relieve pain and prevent all movements of the bowels. When direct communication has taken place between the bowel and peritoneum, opium becomes our sheet anchor and the quantity given at a dose and its repetition must be governed wholly by the attainment of these purposes. Topical applications embracing leeching, fomentations, poultices, etc., will be necessary and are of great relief to the pain and tension of the bowels in the region of the cæcum. Whenever fluctuation and

other indications of the presence of pus are clearly discernible, an opening must be made for its release, and a tent kept in the abcess until satisfied of the healing of the deeper parts. It will be necessary also in these cases to exhibit opium. The judicious administration of food of a nutritious character is necessary so as to support the system without overloading the bowels. When suppuration is abundant and long kept up, accompanied by hectic fever, and night sweats, resorts must be had to all supporting measurers, abundant food and the steady maintenance of the system by the use of stimulants, and appropriate tonic medicines, especially quinine and the mineral acids.

The following cases are furnished as presenting some features of interest in their history:

I. Mrs. M. F. T., a Mexican woman of middle age, of sedentary habits, quite stout and inclined to corpulency was seized with a chill in the night and sent for me. I found her suffering with acute pain in the right side of the abdomen, generally, but most acutely in the right iliac region. The abdomen was somewhat distended, the bowels constipated, tongue furred, pulse about 90, nausea and vomiting.

She informed me that she had been subject occasionally to attacks of colic for sometime back, which she managed to relieve herself of by purgative medicines and warm applications, but obtaining no releif in this attack she concluded to send for medical aid.

Examination of the abdomen revealed after considerable manipulation, for the abdomen was large and loaded with fat, a deep seated tumor in the right iliac region, with diffused tenderness in all directions. The pain was increased by a full inspiration on the least motion of the body, or in extending the right limb, which she kept raised, and in a semi-flexed posture. She had had no action of the bowels for several days, all purgative medicine resorted to having been rejected by the stomach. Diagnosing the case as one probably of intestinal obstruction, purgative enemata were ordered, which elicited but slight effect, after which absolute freedom from all movements of the body was enjoined, leeches were ap-

plied to the right iliac region, followed by warm flaxseed poultices, and opium ordered in pill form, half a grain at a dose, every two hours, both to relieve the pain and restrain the bowels. Under this treatment the patient became more comfortable and it was steadily pursued with the addition of a moderate allowance of nutrients, milk, beef tea, etc., with cooling and acidulated drinks.

On the fifth day after she was seen by me the fullness and pain in the right iliac region increased and the restlessness was very great. In the interval between my visits, and contrary to implicit injunctions to avoid all bodily exertion, she insisted on taking a hot demi-bath.

While in the act of raising herself by the arms to leave the bath, she "felt something give way in the abdomen and fainted." Summoned to her at once I found the skin cold, bedewed with clammy perspiration, and the pulse small and frequent. Stimulants of carb. ammonia, brandy, etc., were given freely and at short intervals under which she gradually rallied. Shortly afterwards the bowels began to act and she passed a quantity of very fetid pus. The discharge of pus continued in diminished quantity for a number of days, and with it a gradual subsidence of the fullness and tenderness of the abdomen near the iliac region.

The obscurity involving the diagnosis at first was removed by the rupture of the abcess, formed in the region of the cæcum, into the intestinal tube, establishing the case as one of typhlitis. The previous history of constipation, colicky pains, etc., pointed rather to infarction of the bowels, and the corpulence of the patients made it difficult to explore and define the exact seat of the disease.

About a year and a half after this illness, I saw the patient several times with hepatic colic, vomiting, and as I inferred the passage of biliary calculus. These attacks seemed to yield readily to the treatment instituted, but at last I saw her in a violent seizure, terminating rapidly in collapse and death.

I was permitted to make an autopsy, and found that death had ensued from perforation of the gall-bladder by a calculus almost entirely filling it, the pointed end of which had passed

through its walls. The peritoneum was greatly inflamed and agglutinated by adhering and somewhat loose fibrinous exudation. The iliac region disclosed the seat of the communication between the cæcum and the smaller intestine, to which it was closely adherent, and welded, as it were, by adventitious bands, in the midst of which the appendix vermiformis was found. The communication was still open, but narrowed, I presume, from its original size, yet was sufficiently large to divide the duty of the natural orificium of the cæcum.

2. J. B., aged 7 years, son of well-to-do parents, represented to me as being a bright and active boy, of dark complexion, was attacked with a dull pain in the lower part of the abdomen, which increased in the course of a few days, and seemed to pervade the whole abdomen. He had some febrile movement with restlessness, and avoided any movement, particularly of the right extremity. The dicubitus was dorsal, and he kept the right leg retracted at all times. The family physician from whom these particulars of the iniatiatory stage of his disease were derived, reported a rounded, well defined and hard tumor in the iliac region, which gave him great pain on pressure, and which he diagnosed as perityphlitis. He was actively purged with calomel and put upon opium and antimonials. Poultices and fomentations were applied assiduously to the seat of pain, and to the abdomen generally. When called to visit the patient in consultation, his feet and legs were œdematous and the integuments about the cæcum and illiac fossa even more so. The tumor was distinct to the touch, and very painful, from which he flinched. About three weeks from the onset of the attack the right thigh began to swell, the integuments pitting on pressure. I found him somewhat emaciated, with irritative, fever and a tendency to diarrhœa. He had some ascitis and tenderness on pressure over the lumbar vertebra. He referred his pain now to the right inguinal region. The diagnosis was obscure and puzzling. Tonics, quinia and sulphuric acid were prescribed, with a generous supporting diet and moderate use of stimuli, under which the little sufferer rallied somewhat.

The swelling in the thigh steadily increased until it reached the condyles of the femor. The integuments overlying the swelling had ceased to be œdematous and were tense and glistening. Satisfied that the swelling was one of purulent infiltration, connected possibly with perforation of the cæcum, a tentative opening was made with an exploring needle through the farcia lata just above the right condyle by which offensive pus was obtained. The opening being enlarged and a bandage applied a large quantity of ill conditioned pus flowed through the outlet, no material impression however seemed to be made by the drainage of the extravasated abcess upon the swelling in the iliac region.

Some days after the liberation of the contents of the abcess, several spicula of bone were discharged through the opening and others continued to issue during the time that he remained under my observation.

The subsequent history of the case I derived from his attending physician. The discharge was maintained of a sanious character, spicula of bone continuing to be discharged from time to time, and diarrhœa with hectic fever gradually wore the little patient to the grave. No autopsy was made.

There can be no doubt that although the primary sufferings and indications pointed to perforation of the cæcum and inflammation of the areolar tissue surrounding it, the subsequent history shows it to have been a case of psoas abcess, pointing under Poupart's ligament and extravasating the muscles of the thigh, with caries either of the lateral processes of the lumbar vertebra, or of the pelvic bones.

3. W. B., aged 20 years, son of a thrifty farmer with whom he lived and for whom he labored, was often complaining and regarded as of a delicate constitution, though he had never experienced any severe illness.

In the month of August after considerable labor and fatigue, he was seized with colicky pains, accompanied by nausea and vomiting for the relief of which the bowels being confined, purgative medicines were administered with but limited effects.

After several days I was called to see him. I found the patient anxious in mind and very suffering, the pain referred to

the right iliac region and ascending colon, along which distention could be felt, and the abdomen generally was full and sensitive on pressure and percussion. He had some nausea and hiccough, with a furred tongue, thirst and quick pulse, without any marked heat of skin. The case was diagnosed as one of perityphlitis, due to cæcal impaction with localized peritoneal inflammation.

He was put on opium in doses sufficiently full to control pain, with appropriate nutriment, warm poultices to the abdomen and profound rest enjoined. No particular change occurred in his symptoms for several days, when he complained of increased uneasiness to the left of the cæcum, about the inner edge of the intumescence, which presented a more prominent appearance; the integument covering it were infiltrated and pitted on pressure. An exploring needle being thrust cautiously into the prominence revealed the presence of pus having a decided fecal odor. Very shortly after the pus had ceased to flow, the opening having been enlarged, an ascaris Lumbricoides of full size and alive appeared at the opening and was drawn out. Three worms altogether were thus discharged, followed by a gradual diminution of inflammatory products about the cæcum, leaving a fistulous opening or artificial anus through which fecal matter was discharged.

The patient removed to Texas shortly afterwards, and no further history of the case came into my possession.

4. The following case of perityphlitis occurred in the person of a young planter about 28 or 30 years of age. He was of robust frame, somewhat inclined to corpulency, led an active life and was much given to the chase. He wore no suspenders, but retained his nether garments by buckling them tightly above the hips. Pursuing the game on horseback, and riding often ventre-a-terre, leaping logs and fences and not unfrequently with his gun resting across his lap.

Doubtless, the stricture about the waist, or the concussion applied to the right iliac region brought about cœcitis, involving the adjacent areolar tissue. I saw him early in the attack, and found him with high fever, acute pain in the illiac region,

a well defined tumor, rounded and very sensitive to the touch, with a doughy feeling, and situated just above Poupart's ligament, with some tympanites. This was late at night. The next morning I found the tenderness more localized and the tympanites increased. He was bled from the arm, leached over the cæcum, followed by warm fomentations, and opium combined with a solution of antimony given at regular intervals. Subsequently the part was blistered. Under this treatment the inflammatory symptoms gradually abated, though the exudation in the cæcal region remained for a length of time after all inflammatory signs had disappeared, and the convalescence was a tedious one.

The case was an instructive one to me altogether. There was every ground for believing that suppuration would occur even though no ulcerative process might have gone on in the walls of the cæcum.

The attack may have been due to the application of direct force to the inguinal region, under the violent horse-back exercise indulged in, and the cording of the abdomen just above the illia, doubtless contributed toward obstructing the cæcum. Notwithstanding the grave character of the attack, the patient made a good recovery.

Current Medical Literature.

ICTERUS NEONATORUM.

In the *Lancet* for March 25, 1882, there is an abstract taken from *Virchow's Archiv*, which is interesting as showing the present state of our knowledge regarding that much vexed question, icterus of the newborn. The author says: "The mysterious jaundice which so often affects newly-born children has always given rise to much interest, and many hypotheses based for the most part on fancy rather than on fact. By some authorities its cause is referred to the liver, by others to the blood; modern theories render the former explanation the more probable, since the opinion that the elements of the bile are performed in the blood has been practically given up. Virchow believed that icterus neonatorum was merely a variety of

the common catarrhal jaundice, and arose from duodenal catarrh, while Cohnheim has assumed that the bile formation of fœtal life is small, and is so suddenly increased at birth, that the bile ducts are not at first competent to carry the secretion away; neither of these assumptions rests on evidence. Another group of theories ascribes the jaundice to the disturbance of the circulation in the liver which occurs at the change from intrauterine to separate life. Hewitt and Weber believe that the distended veins compress the bile ducts, while Frerichs has adopted an old theory of Morgagni, and suggests that the sudden diminution in the supply of blood to the organ leads to a passage of the secreted bile into the blood-vessels. The theory of Breschet, that the jaundice depends on changes in the coloring matter of the blood, and is thus hæmatogenic, has been recently rivived by Epstein, but it rests on considerations, which are, with one exception, presently to be mentioned, even more purely hypothetical, its chief support being the feeble argument that other causes have not yet been demonstrated. This lacuna in our knowledge has to some extent been filled up by the investigations of Birsch-Hirschfeld. This author says that it is difficult to avoid associating the jaundice in some way with disturbance of the hepatic circulation on the transfer of its chief blood supply from the umbilical vein, especially when regard is had to the conspicuous congestion and œdema of the liver, well described by Weber, which occurs in cases in which the circulation through the umbilical cord is interrupted before the respiratory movements by their effect on the right heart afford an adequate compensation. It is to the connecting link between the two phenomena that Birsch-Hirschfeld's attention has been especially directed. He notes that the vessels in the hilus of the liver are surrounded by a dense layer of connective tissue, which is continued into the organ along the branches of the portal vein, and that in cases where there is venous obstruction in the liver in consequence of hindered birth this tissue is the seat of conspicuous œdema. A broad layer of gray pulpy tissue incloses the vessels, and is also seen around the umbilical vein in its diaphragmatic portion, extending also to the gall-bladder. The microscopic appearances of this tissue are those of œdema, with more or less abundant accumulation of round cells in the interstices of the tissue. That this swelling of the tissues must compress the bile ducts is sufficiently obvious, and Birsch-Hirschfeld has found that not only under these circumstances are the bile ducts distended, but there may be a positive difficulty in squeezing the bile out of the gall-bladder into the duodenum, while in the latter there is a manifest deficiency of bile. In cases where death occurs in the first day of life, beginning icterus may be distinctly detected, and gradual increase of the jaundice in connection with this pathological condition may be observed in patients in whom life continues longer, as cases reported by Birsch-Hirschfeld demonstrate.

"A difficulty, however, in accepting this theory is presented by the fact, brought forward by the advocates of the hæmatogenic origin of the jaundice, that presence of bile pig nent can rarely be demonstrated in the urine. The cause for this is not very clear; its significance, however, is lessened if not re noved by an important fact ascertained by Birsch-Hirschfeld, that in fatal cases of this infantile jaundice the presence of bile acids may always be demonstrated in the pericardial fluid, whereas they cannot be found in other children who do not present jaundice. This may be taken as proof that the color depends on the presence of bile in the blood, and not on any mere destruction of blood corpuscles and transformation of blood pigment. It may also be regarded as proof of the hepatogenic origin of the jaundice. By the definite theory of Birsch-Hirschfeld all the characteristics, peculiarities, and time of development of this form of jaundice may be perfectly explained. In very rare cases, however, jaundice of a much graver type occurs in new-born children. One cause of this is a congenital atresia of the bile ducts; more frequently it is due to the compression of the ducts by syphilitic inflammation and growth, the syphilitic peripylephlebitis of Schüffel. Another form, which is extremely grave, seems to be developed by an infective process.

"The *materies morbi* enters by the navel wound, and is perhaps the same as causes puerperal fever in the mother, conveyed, it may be, by bacteria, since two forms of micro-organisms may be found in the blood of infants in this condition; spherical and small rod-shaped bacteria, probably identical with those found in septicæmia in the mouse. Further investigations are necessary to ascertain whether these correspond to two different forms of infection. Birsch-Hirschfeld's observations, however, tend to show that the rod-shaped bacteria occur especially in the form in which the decease developes rapidly as a virulent general infection, with a strong disposition to hæmorrhage. In these cases an arteritis umbilicalis has generally been found, and the conclusion has been drawn that this vessel is the channel of infection.

"In fifty cases, phlebitis umbilicalis was found in eleven, simple thrombus of the vein in four, arteritis alone in thirty-two, and inflammation of both vessels in three. Nevertheless, even when the artery alone is conspicuously diseased, the liver, as a rule, shows intense alterations, inflammatory changes in the peripheral and interacinose tissue and acute degeneration of the liver cells, which constitutes a strong reason for believing that the infection reaches the liver by the umbilical vein. After birth the varying pressure on the liver cells due to the cardiac and respiratory movements causes an alternate emptying and filling of the remnant of the umbilical vein, while the contraction of the artery arrests its own circulation; hence the conditions are most favorable in the artery for the

local development of the morbid process, but in the vein for systemic infection, and the movement of the blood in the latter may explain why the local changes in it are less intense.

"Birsch-Hirschfeld describes three cases in which there was a central phlebitis of the umbilical vein and a pylephlebitis had developed at the opening of the umbilical into the portal vein, whereas the whole lower end of the former was free, a condition which can only be explained by assuming that the movement of blood in the vein carried the infectious material forward, so that its action was exerted chiefly on the portal vessels. This condition may easily escape notice in an ordinary examination. No relation is to be traced between the intensity of the vascular change and the degree of the jaundice which is so constantly associated with this infection, but the former is always intense when the changes in the substance of the liver are well marked; thus it seems likely that this jaundice is also of hepatogenic origin, and it is probably due, like the benign form, to the swelling of the peripheral connective tissue, compressing the bile duct within the liver itself. We can thus understand that the degree of jaundice should lesson towards the close in cases of severe general infection. The conditions which favor the occurrence of the benign form of jaundice, premature birth, weak breathing, etc., also favor the development of the malignant variety, if there exists any cause for septic infection."—*Boston Medical and Surgical Journal.*

HOMŒOPATHY AS PROFESSED AND AS PRACTICED.

We give the following reference to homœopathy from an inimitably racy valedictory address to the graduating class of Bellevue Hospital Medical College. We commend it particularly to some of our readers on whom our more recent utterances on the subject have had a somewhat disturbing effect. It is, as precisely as may be, a statement of the position which, in our opinion, the regular profession should assume toward homœopathy:

"One of the latest authoritative expressions of opinion on this subject is the following resolution recently adopted by the Royal College of Physicians in London:

'While the College has no desire to fetter the opinion of its members in reference to any theories they may see fit to adopt in connection with the practice of medicine, it nevertheless expresses its opinion that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment, is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public. The College therefore expects that all its fellows, members, and licentiates will uphold these principles by discountenancing those who trade upon such designations.'

This last sentence touches the root of the difficulty. *Those who trade upon such designations.* Let us take a concrete example. You treat a case of pemphigus with arsenic. You may theorize as you like about the essential nature of pemphigus; you may select arsenic because you think it would produce the disease, or because you think it produces something contrary to the disease, or for no reason whatever beyond the empirical fact that you have seen a case of pemphigus recover under the use of arsenic. Also, you may give this arsenic alone or combined with other substances, and in any doses that you please, from the decillionth of a grain to a grain, and you may explain the results as you like. But as an educated physician, and a gentleman, you may not advertise yourself as an arsenio-pemphigist, and denounce every one who does not adopt your theory and practice: and as there is a good deal of common-sense truth in the old adage, that a man may be known by the company he keeps, you will not have more to do than you can help with the men who do so advertise themselves; and still less will you have to do with themselves as antiarsenio-pemphigists, and then treat their cases with arsenic after all, and claim the results as due to dynamized brickdust.

And please observe that this is all that you have to do. You are not to enter into controversies with them or abuse them; you are not to repine over their success or exult over their failures. They have another code of ethics from your own; that is all that need be said about it. Thus far I have been speaking of fairly educated sectarian physicians. As to the ordinary, uneducated, and bill-distributing quack, with his sure cure for cancer, or his pure vegetable specific or coughs, rheumatism, and dyspepsia, you may be sure that in the long run he will make rather more business for you than he takes away. Do not fall into the error of supposing that legislation can prevent the existence of this class of men, or that you need the protection of the law against them. The public interest demands such protection, if for no other reason than to secure a proper registration of the causes of deaths of all citizens, and it is not only your right, but your duty, to call the attention of legislators to these interests, but never seek protection on your own account."—*Michigan Medical News*, April 10th.

THE PARASITE OF LEPROSY.

The observations of Hansen on the bacillus of Leprosy, confirmed by Heiberg, Bidenap and Winge, have recently received additional confirmation from MM. Cornil and Suchard. These investigators found that when a portion of leprous tissue was teased out in water, numerous bacilli were seen in active movement. In sections stained with methylaniline the characteris-

tic cells of the diseased tissue, and the endothelium of the blood-vessels, were seen to contain rods and elongated spheroids. The cells of the epidermis covering the leprosy-nodules contained no parasites, which may account, the authors suppose, for the rarity with which the disease is propagated by contagion. In one case, in which the liver was found in a condition tion of hypertrophic cirhossis, the bacilli were found in the newly formed cells present in the interlobular connective tissue, and were also found in some of the hepatic cells. (*Annales de Dermaotlogie et de Syphiligraphie*, 2nd Series, vol. ii. No. 4.)—*Practitioner*, March.

FORMULARY.

TREATMENT OF HOOPING COUGH WITH THE BENZOATE OF SODIUM.—LETZERICH.

℞ Sodü Benzoatis (about) - - - ℈iv;
Aquae Menth. pip.
Aquae still, - - - - ℥i;
Syrupi Aurantü cort. - - - ℥ss ℳ.
Sig. one teaspoonful hourly.

BROMIDE OF POTASSIUM INJECTION FOR GONORRHŒA.—(CHAMBILLIARD.)

℞ Aquæ - - - - - ℥v;
Glycerinæ - - - - 3iiss;
Potassii. Bromidi - - - - 3iss;
Laudani - - - - - 3ss ℳ.

The purpose of this injection is to relieve the distressing nocturnal erections associated with Gonorrhœa. The urethra should be injected four times daily, the last injection before retiring.

The solution should be permitted to remain in the canal at least one or two minutes, otherwise its effects are unsatisfactory.

FOR UTERINE GRANULATIONS.—(GUERIN.)

℞ Adipis - - - - ℥ss;
Hydraig. oxidi rubri - - gr. xv½ ℳ.

A tampon smeared over with this ointment should be placed in contact with the cervix (through the speculum). The application should be removed every day, after the use of an astringent or detergent wash. (Inf. Quercus, for instance.)

LINIMENT FOR PRURITUS VALVÆ.—(TANSKY.)

℞ Balsami Peruviani - - - 3i;
Olei Amygdalæ dulc. - - - 3iii;
Gum Acaciæ pulv. - - - 3ii;
Aquæ Rosarum - - - - ℥i.

Dissolve the gum arabic in the rose water, the peruvian balsam in the almond oil and mix the whole thoroughly. Apply with a camel's hair brush to the vulvar region 8 or 10 times daily, according to the intensity of the pruritus. Baths and cold drinks are valuable accessories.

Phagedenic chancres and chancroids have been treated so successfully by M. Vidal, of the St. Louis Hospital (Paris), with pyrogallic acid, that we will reproduce his formula as published in the *Journal de Médecine et Chirurgie.*

℞ Acidi Pyrogadici	- - -	3v;
Amyli	- - - -	ʒiiss M.

"The application of pyrogallic acid gives rise to a dark discoloration which should occasion no anxiety. It is well to observe, also, that this treatment induces an induration in a chancroid in all respects analogous to syphilitic induration, and easily mistaken for it if the practitioner is not already acquainted with this fact.

In all cases in which the ulceration is extensive and the surface of the sore presents an anfractuous and irregular appearance, a condition in which the thorough application of the remedial agent is rendered difficult, the powder above given should always be preferred to any other mode of applying the pyrogallic acid.

An application should be made in the morning and renewed in the evening, if this course is strictly followed, it will be found that the ulcer will be completely relieved of its phagedenic character in the lapse, usually, of two days. The subcarbonate of iron should then be substituted as a dressing.

For some time past, M. Vidal, has made use of the powdered sub-carbonate of iron as a dressing to ulcerated surfaces, and the success attending his practice would certainly warrant us in recommending it to our readers. "This preparation seems preferable to the majority of those usually employed in the treatment of ulcers and is even superior to iodoform, as it none none of its disadvantages."

One of M. Vidal's pupils, Dr. Zartarian, has gathered in his thesis a great number of observations, which very clearly demonstrate the utility of this application, when practiced as follows: In the first place, the ulcer should be thoroughly washed with an astringent solution, preferably a decoction of the leaves of the ordinary pecan tree (Juglans Regia); then a uniform layer of the sub-carbonate should be dusted over the affected surface. The last stage of the dressing is to cover the whole surface with a starch poultice. M. Vidal recommends two applications of the powder daily. This method is applicable to all ulcerated surfaces, although in the work we have just quoted, only the treatment of ulcers of the leg is recorded. All these cases are remarkable on account of the rapidity with

which the cure was effected. As to the mode of action of this substance it is probably very complex.

No matter what may be the explanation of its action, it is certain that the sub-carbonate is of easy application, it is cheap, and in our minds, it is a remedy destined to play a part of great usefulness in the therapeuties of ulcerated surfaces.

CALCIUM SULPHIDE IN SUPPURATION.

Dr. A. H. Smith (*New York Medical Journal*, June, 1882), after careful analysis of several cases, claims that he is warranted in concluding that in many cases of suppuration an appreciable and often marked benefit is derived from the use of calcium sulphide. At the same time the action of the drug is not perfectly uniform, and in apparently favorable cases it may fail entirely. The drug is somewhat prone to irritate the stomach, which affords an indication for small doses frequently repeated. One-tenth of a grain every two hours will generally, in acute cases, secure the full therapeutic effect of the drug, but large doses may sometimes be required, and some patients bear well a grain three or four times a day. Even in small doses the drug may occasionally produce headache, and the patient be more or less annoyed by eructations of hydrogen sulphide.—*Chicago Medical Review*, *June* 15.

INSANITY AND DIVORCE.

Some time ago a Commission was appointed in Paris to investigate the question of Divorce, and determine what circumstances should in future be accepted as valid reasons for the dissolution of the marriage tie. MM. Charcot, Blanche and Legrand du Saulle have recently appeared before this Commission, and testified that, with some reservations, insanity should not hold in law as a plea for divorce. According to the *British Medical Journal*, a writer in the *Gazette Hebdomadaire* warmly endorses the opinion of these eminent men, and in support of it advances the following reasons:—

1st. *No disease* occurring after marriage, not even impotence, justifies divorce; insanity being due to a diseased condition of the nervous system, can therefore no more justify divorce than any other form of disease. The insane suffer in their moral and intellectual, as well as in their physical health, and consequently deserve even greater consideration and care from their friends than those afflicted with ordinary ailments. In many cases, it is true, strict precautions must be taken to guard against the effects of mental loss of balance, but these do not necessitate either divorce or separation.

2d. *Chronic Insanity*, although often incurable, is not necessarily so. It would be both cruel and unjust to make it legally

possible for a married man to return to his home after an unexpected recovery from chronic insanity, to find his wife divorced from him and wedded to some other man. The form of Dementia known in France as *Folie Circulaire* often yields such surprises. M. Blanche cites one case of this kind which, after sixteen years, recovery eventually took place *General paralysis* is admittedly incurable; yet such long and complete remissions do sometimes occur as to deceive even the most experienced practitioners, the disease seems permanently arrested, and the patient leaves the asylum and returns to his family. With regard to these hopeless cases which are manifestly passing from bad to worse, Charcot maintains that the plain duty of the family is to redouble every possible attention, and wait patiently for the inevitable end, rather than seek for relief by divorce. *Epilepsy*, though generally continuous and a fruitful cause of insanity, is nevertheless sometimes limited to two or three attacks, then disappears never to return. According to Foville, such epilepsies occur chiefly in the young, and are most frequently connected with the eruption of the wisdom teeth. Epilepsy is sometimes caused by the irritation of intestinal worms; the case of a librarian is cited where epileptic attacks ceased after the expulsion of a tænia, and did not return during the remaining fifteen years of his life. Chronic insanity should not therefore be admitted as a reason for divorce.

3d. It is by no means uncommon to meet with persons sufficiently wanting in the moral sense to speculate by marriage on the diseased condition of their fellow creatures. Those affections which are slow in presenting their true character, but are not unfrequently recognizable in their early stages, such as phthisis and insanity, are particularly adapted to this kind of calculation. The prospect of divorce would be yet another encouragement, and so much the more tempting as regards dementia, that it would be more easy to accomplish an act of spoliation in the case of a person of weak intellect after marriage.—*Canada Med. Rec.*, April.

CHLORAL AND TINCTURE OF IODINE.

By the addition of chloral hydrate in the proportion of an ounce and a half to the pint of tincture of iodine, the solution may be diluted with water *ad libitum*. The liquid is of a golden yellow color and peculiar oder. It coagulated albumen immediately, and has marked hemostatic, antiseptic and narcotic properties.—*Louisville Med. News*

SULPHUROUS ACID IN TUBERCULOSIS.

Some experiments by Froschauer on the treatment of septicæmia by sulphurous acid, suggested to Catini the trial of this agent in phthisis, and his experiments are of interest, not only from this practical aspect, but also in connection with the discoveries of Koch. Phthisical patients were made to drink of water impregnated with it, and especially were made to breathe in closed rooms the air of which contained a considerable quantity. The experiments, continued for a considerable time, yielded the following conclusions: Most patients bear the long-continued inhalation of sulphurous acid remarkably well; only during the first few days, before they have become accustomed to it, do they complain. All the cases thus treated became free from fever in the course of a few days, and subsequently remained so. As far as could be ascertained, the local mischief showed no tendency to increase during the treatment, and the amount of expectoration became slighter. The observations are being continued in order to ascertain how far a permanent effect can be produced.—*Lancet, July* 22, 1882—*Medical News.*

GALLO-ROMAN REMAINS.

In 1881 Dr. Habran presented to the Societé Médicale, of Rheims, bones collected from one tomb in the ancient Gallo-Roman cemetery, in the Faubourg de Laon, at Rheims.

These bones presented exostoses at the sternal extremity of the clavicle, and the inferior end of right ulna, junction of the dorsal vertebræ, and finally, ulcerations of the teeth, analogous to those described by M. Parrott in syphilitic children.

M. Habran is of opinion that this ancient inhabitant of Rheims was undoubtedly syphilitic, as proven by the traces left by the disease on the bones.—*Med. and Surg. Reporter*, May 27.

RHEUMATISM AND SYPHILIS.

Dr. C. B. Lockwood (*British Medical Journal*, May 27, 1882), has noticed that the prior existence of rheumatism exerts a marked influence on the initial lesion of syphilis, causing it to take on a phagadænic and necrotic character. He believes that this explains the occurrence of many cases of malignant chancre which are from time to time reported by syphilographers. He is inclined to think that in these cases mercury does harm, and that potassium iodide is of very great benefit. His cases certainly appear to indicate that the relationship between the rheumatism and the malignant chancre is more than coincidental, but require further confirmation.—*Chicago Medical Review, June* 15.

PELLETIERINE, A RELIABLE REMEDY AGAINST TAPEWORM.

Mr. Tanret, of Troyes, the discoverer of pelletierine (the active principle of the bark of pomegranate root), has of late put this anthelmintic in such a palatable form that it is taken without repugnancy on the part of the patient. It is imported in liquid form, put up in small bottles (fifteen grammes each), the contents of one of which constitutes a dose for an adult.

No subsequent dietetic measures are necessary, only omitting supper and breakfast before the following day when the medicine is to be taken. It causes no discomfort to the patient, and is quick in its action; in the last case the worm with its head was discharged one hour and a half after the cathartic was administered. It has, in my hands, proved to be the safest and most reliable remedy yet used against tapeworm.—*Cincinnati Lancet and Clinic.*

NARCOTISM IN INFANCY.

Dr. Cribbs Lawrence says, in *Practitioner*: Given a healthy child to start with certain results will follow the administration of narcotics, with an equally certain regularity.

1. In the early administration of a norcotic, more or less diversified, according to the temperament of the infant, a modified degree of excitement will supervene, to be followed by sleep; and this favorable condition of things may recur for a period varying from a few days to a week or two. If, however, the repetition of the narcotic be at all frequent, or if it be exhibited in any but a very small amount, this period of favorable narcosis will be proportionately diminished, and the chances of its lethal effect increased.

2. In some infants the effect of the narcotic will be to speedily constipate, for, as in the adult so in the infant, a narcotic lessens at once the secretions and movements of the stomach and intestines, and consequently digestion becomes arrested.

There is, however, a class of cases met with in infancy, wherein infants, the subject of imperfect digestion associated with colic, becomes for a time benefited by a moderate amount of narcotic. Here the sedative acts by checking peristalsis, and so enables the food to remain a longer time in contact with the digestive juices, and thus to become more perfectly digested. This condition, however, is more frequent in early childhood than in infancy.

A third and more frequent sign of the administration of a nartotic in the infant is the occurrence, sometimes the concurrence, of diarrhœa and vomiting. When these occur a longer time will elapse than when such conditions are absent, before profound narcosis ensues.

3. In addition to the above, diaphoresis and diuresis may occur, one or both. Either of these may and often will be present in an inverse proportion to the other. The predominance of either will be dependent upon the amount of fluid ingesta, the character of the fluids taken, and the condition of the temperature of the weather present at the time. Obviously, warm weather or an over-heated atmosphere will promote diaphoresis, while cold weather would augment diuresis.

4. The intestinal evacuations soon alter in character, becoming paler and more solid in consistency, diminished in their frequency, and increasingly more and more deficient in bile, accompanied by a change in color, from yellowish green to verdant green, with or without mucus, and if very constipated, accompanied by streaks of blood, owing to the tenesmus which is associated with the expulsion of the hardened, ill-digested fæces.

5. Another vital symptom, though of later occurrence than the preceding, is marked depression of the vital powers, evidenced by the sinking of the anterior fontanelle. This is accompanied by other signs of want of vitality, viz., feebleness of pulse, loss of weight, an earthly complexion, wasting, especially marked in the pinched and anxious expression of the face. By this time the infant alternates between efforts at peevish whimpering and imperfect somnolency.

The pupils will be found, in the earliest stages of narcotism in infancy, to be frequently contracted, but when the stage of fontenelle depression is reached they may contract or dilate, and one pupil may be larger than the other. This condition I believe to be dependent upon variations in the amount of fluid present in the ventricles of the brain.

So soon as this stage is reached, any subsequent dose of a narcotic may prove speedily lethal, and the greatest care and caution become necessary to avert an untoward result. It is at this point that I believe the cumulative effect and action of the narcotic assumes a point of much peril to the infant. One or two results may now supervene; either clonic convulsions may set in, though these or not very frequent, or, much more commonly, profound and fatal coma.—*Med. and Surg. Reporter.*

Editorial Department.

YELLOW FEVER IN NEW ORLEANS IN 1882.

In our August number details were given as to two cases, viz.: Henry Forbes, the first undisputed case of yellow fever,

who arrived from Havana June 18th, proceeded on June 20th to a boarding house, No. 99 North Peters street (fronting the river), and forming part of the house on the corner of Enghien street or Lafayette avenue, where he sickened June 22, and died in the Charity Hospital June 26th. And the disputed case of Ludwig Deschler, a resident of New Orleans for nearly ten years, working and residing at the Lafayette Brewery, located on the river at 1010 Tchoupitoulas street, some three miles above Enghien street. He sickened July 12th and died July 17th. An additional report of this case by Prof. Chaillé will be found in the present number.

Since the record of these two cases information has been received of two undisputed cases, and of two cases which have been regarded by some as suspicious. A brief record of these four cases will be given.

C. Rowley, living at the corner of Enghien and North Peters streets, which is numbered 1 and 3 Enghien street and No. 100 North Peters street, was taken sick on July 12th; had continued fever for four days, his temperature ranging from 99°.8 to 102°.7; his pulse did not exceed 92; his eyes were slightly injected, yellowish and muddy; his capillary circulation was languid; the tip of his tongue was quite red; quinine had apparently no beneficial effect; and he made a prompt and good recovery. Rowley, who lived a few doors from the Forbes' case, had worked for ten or fifteen days on the Ile Marthe, a French sailing vessel, which arrived in New Orleans from Colon on June 19th, when it was moored at the wharf at the head of Enghien street, just across North Peters street from Forbes' boarding house, as also from Rowley's. At the time of its occurrence Rowley's case was regarded with some distrust but not with decided suspicion.

Johannes Stroh, boarding with his aunt, at No. 25 Enghien street, on the same block with Rowley and on the block opposite to where Forbes sickened, was taken sick about 9, A. M., July 28th, and died at 6:30, P. M., August 1st. This case was well marked, and constituted the first undisputed local case.

On August 10th a destitute, anæmic and emaciated old man, who said that he was 60 years of age, a foreigner and 3 years in New Orleans, was seen by a physician, apparently for the first time during his last sickness. The condition of the patient and the circumstances were such, that little reliable information, concerning his previous history, could be discovered. However the following statements are believed to be thoroughly trustworthy. The man had long been a homeless tramp, suffering with chronic bowel complaint, and he slept on August 9th, where he had recently frequently slept, in a house from three to four blocks distant from the houses where Forbes, Rowley, Stroh and Endlung (whose case is yet to be reported) sickened. An additional cause of suspicion, needless now to state, attaches to the house where this old man slept. On August 10th his temperature was as high as 103°.4, therefore the man had fever. On the 11th, his temperature reached 99°.9 when it declined. He died before daylight on the 12th. About midday on the 11th he began to throw up black vomit, and continued to do so until his death. He had free urethral hæmorrhage. He became jaundiced slightly, but unmistakeably. His urine, which was profusely excreted, was albuminous to about 33 per cent. His tongue was not characteristic of yellow fever. The post-mortem proved chronic ulcerations of the jejunum, beginning more than 4 feet below the stomach and continuing into the upper portion of the ileum. Neither in the stomach nor duodenum, nor in the bladder nor urethra, was there anything abnormal more than blood-enlargement? There was found the nutmeg liver with fatty degeneration. The kidneys contained small ecchymoses and were bloody; they were also slightly granular on the surface, and presented a degree of fatty degeneration sufficient to justify the belief that Bright's disease may have pre-existed. Undoubtedly this man had chronic enteritis, and probably commencing Bright's disease; but, after granting this much, what caused his profuse black vomit, his free urethral hæmorrhage and his evident jaundice?

In answer to this question, it seems appropriate to recall the fact, that early in 1881, the New Orleans Medical and Surgical Association, the Orleans Parish Medical Society and

the Louisiana State Medical Society endorsed the following views :

"Suspicious cases of yellow fever.—For sanitary purposes the following symptoms, associated with a fever of one paroxysm in a patient who has apparently been exposed to infection and has never had yellow fever, shall be held to justify (if occurring between May 1 and November 1), in *either* of the six following cases, suspicion of this disease, viz :

First—Suddenness of attack, either with violent pain in back and head, injected eyes and face, or with marked congestion of the superficial capillaries.

Second—Want of that correllation between pulse and temperature usual to other forms of fever.

Third—Albuminous urine.

Fourth—Black vomit.

Fifth—General hæmorrhagic tendency.

Sixth—Yellowness of skin.

The following cases shall also be deemed suspicious :

Seventh—Any cases respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever.

Eighth—Any case respecting which efforts are made to conceal its existence, full history and true nature in violation of section 28, city ordinancees of May 18, 1870, and section 22, city ordinances, June 24, 1879."

It is confidently maintained that New Orleans will never succeed, either in preventing the spread of yellow fever or in securing the confidence of its neighbors, until our physicians execute rigorously the above well considered programme for the determination of suspicious cases; and, until all such cases as that of the old man just reported, are pronounced suspicious and every sanitary precaution against yellow fever is promptly enforced. Unfortunately, our press and public discourage physicians from reporting suspicious cases, hence their reluctance and delinquency. The history of New Orleans presents many instances where physicians have been grossly abused for reporting yellow fever cases, but not one instance where a physician has ever been censured by the public for the grave and frequent fault of neglecting to report them. Thus does the public encourage negligence of public duty.

A young Fin, named Englung, about three months in New Orleans, residing at No. 85 North Peters street, less than three hundred feet above the boarding house of Forbes, was suddenly

taken sick at 3 A. M., August 9th, and was conveyed to the Charity Hospital about 9 A. M. By the evening of the 10th he had been declared, with great unanimity, to be suffering with yellow fever. In the published proceedings on the 11th of the State Board of Health, this case was reported to be a "mild, sporadic" one. The newspapers of the 13th renewed the assurance that this was a "mild, sporadic" case, and one of them, the *Picayune*, announced that it was "rapidly recovering." In a critical condition from the first, Endlung died with typical yellow fever at 4:30 P. M., the 15th.

The record of the essential facts in the above six cases of disease have been completed. Three of these cases, Forbes, Stroh and Englund, were undisputed cases of yellow fever, and it is difficult to avoid the conclusion that Deschler's case was very suspicious; that the sixty years of age old man's case was at least suspicious; that Rowley's case merited the distrust it excited; and that all three required from sanitarians all the watchfulness and all the precautions due to cases of undoubted yellow fever. Until this view be adopted in respect to all such cases, prevention must continue to be, in large measure, paralyzed.

It is noteworthy that, of these six cases or suspicious cases, four died, yet yellow fever seldom kills more than one in three cases; and that four of said cases occurred in the Charity Hospital, yet not more than about one-fifth of the sick of New Orleans enter this hospital. However, no other cases are known to have occurred, our physicians complain that there is little to do, and the city's death-rate has been for several weeks unusually favorable. So that, it is reasonable to hope, that the worst is known and that New Orleans will this year escape serious devastation.

Until about August 12th, all were disposed to admit that Forbes arrived in New Orleans already infected with the poison of yellow fever, which he had presumably received in Havana or on board the steamship Marco Aurelio, and that all the other cases, except Deschler's, were derived from the imported case of Forbes. However, facts have recently been discovered well calculated to arouse some doubt, whether Forbes' case and

all others, except Deschler's, were not of local origin, and from one common source of imported infection.

These important facts deserve careful consideration, and are as follows: The French ship Ile Marthe, 1275 tons, built of wood, and eleven years old, after lying forty-nine days at Colon, where one man died on board of reported "congestion of brain," set sail for New Orleans on June 4th, 1882. The sanitary condition of Colon at this time is thus reported:

The *Times-Democrat* of May 26th contained the following: "Panama, May 11th.—The Jamaica authorities have declared the port of Colon (Aspinwall) an *infected* port, and all steamers from the Isthmus, whether with clean bills of health or not, are ruthlessly quarantined." And the *Times-Democrat*, July 9th, published the following: "Panama, June 29th.—There have been three fatal cases of yellow fever lately among the canal employees, and eleven soldiers of the Columbian Guard have died of the disease here. In Aspinwall there have been nine deaths from the disease; three being foreigners, residents on the Isthmus, and three sailors from vessels in Navy Bay."

The Ile Marthe arrived at our Mississippi River Quarantine Station with seventeen whites and one negro on board (none of whom were said to be acclimated), and with a clean bill of health from the "*reliable*" U. S. Consul, at 9 P. M., June 16th, and leaving the quarantine station at 8 A. M., June 18th, arrived in New Orleans early on the morning of the 19th. This vessel, moored at Post 28, Third District, was entered at the New Orleans Customhouse on the 20th, and on this same day and the two following days, having no cargo except 100 tons of old iron on board, 300 tons of stone ballast, from the reported infected harbor of Colon, were discharged at the head of Enghien street, the vessel lying between this street and Spain street, where Post 28 is located. This ballast was purchased by the city of New Orleans on July 16th, after which a portion was used to repair streets, some of it being placed, as is alleged, on Frenchman, Toulouse and Claiborne streets. Deposited at the head of Enghien street on June 20th, 21st and 22d, a large pile of it continued to remain there until August 16th, when it was satisfactorily disposed of through the influence of the

New Orleans Auxiliary Sanitary Association. A good thrower, standing on this pile, might strike with pieces of this ballast all of the four different houses in which Forbes, Rowley, Stroh and Englund sickened, for even the farthest one of these four houses is not 600 feet distant. The Ile Marthe itself continued to remain at the head of Enghien street from June 19th until July 13th, when it sailed for Havre.

Now, it is worth recalling that our August number commented on the difficulties attending the determination of the period of incubation of the Forbes' case, especially on the apparently exceptional duration thereof; that a part of the ballast was deposited on June 20th, and on this same day Forbes took lodging at 99 North Peters street, only a few paces distant from this ballast, and that he sickened two days thereafter, on June 22, a very frequent period of incubation.

All students of yellow fever know how frequently ballast from infected ports has been suspected as the originating source of yellow fever epidemics, and with what grave suspicion such ballast is regarded by all sanitarians. It is therefore impossible to avoid the question, whether the ballast from infected Colon may not have been the source of the infection, thus far especially localized in the limited portion of New Orleans nearest to said ballast? Forbes, Rowley, Stroh and Englund were daily tempted, by their proximity to this ballast on the river-bank, to walk over and to sit down upon it.

As recently as August 13th, the press repeated the boast that New Orleans was doing everything practicable to prevent yellow fever, and yet at this very time and under the very eyes of the State Board and of our municipal officials, so much of this ballast still challenged inspection, as had not been distributed upon our streets. What a sad commentary upon our boasts and our prudence!

The two following conclusions cannot be questioned. If yellow fever is not an importable disease, then the laws of this State, the ordinances of this city, the Board of Health and its sanitary inspectors are all huge mistakes; and, it is hopeless to expect to prevent its importation as long as such criminal carelessness, as this ballast proves, remains possible.

Reviews and Book-Notices.

Nervous Diseases; their Description and Treatment. A Manual for Students and Practitioners of Medicine. By Allan McLane Hamilton, M. D. Second edition, 1881, pp. 598. Philadelphia: Henry C. Lea's Son & Co. New Orleans: Armand Hawkins.

This second edition of Dr. Hamilton's work is enlarged and in many respects shows improvement upon the first, which it so quickly follows. As previously, the subject of insanity is not considered.

The *introduction* consists of two chapters, comprising hints in regard to methods of examination and study, and instruments used for the diagnosis and treatment of nervous diseases; these are worthy of careful perusal.

Entering upon the subject proper, the author adopts the following division: Diseases of the cerebral meninges; diseases of the cerebrum and cerebellum; diseases of the spinal meninges; diseases of the spinal cord; bulbar diseases; cerebro-spinal diseases; diseases of the peripheral nerves.

The disorders covered by the foregoing headings are carefully considered. Want of space does not allow an extended analysis of these chapters, which are all fraught with deep interest; it may, however, be permitted to call attention to the article on *Tetanus*, in which, among other points, the author writes: "Dr. Joseph Jones, of New Orleans, the author of one of the most able articles upon this subject that has ever appeared, has made numerous examinations of the urine. He found that the quantity of urine excreted during the active stages was greatly diminished from the normal standard, and in the successful cases treated the amount increased with subsidence of the symptoms. He also found that the urea was increased during the active stages and the uric acid was diminished." The question of *treatment* shows evidences of the dissatisfaction with remedies, which is so wide-spread in this disease. Dr. Hamilton says: "It would be useless to discuss the merits of the many drugs that have been brought forward from time to time. Our most efficacious remedial agents are the depresso-motors, and among these may be mentioned

chloroform, chloral hydrate, Indian hemp, calabar bean and conium."

With regard to the *treatment* of epilepsy, we read the following: "No one drug can be declared a specific, as I am sorry to see has been done; and we must not be too eager to accept the sanguine results of certain over enthusiastic authorities and be governed thereby. I allude more especially to the almost universal use of the bromides to the exclusion of everything else, and also to their employment in quantities which often ruin the patients, or, at any rate, produce a condition of diminished vitality, which is inconsistent with any hope of success."

In the chapter on *alcoholism*, the author recommends either the bromides or the mono-bromide of camphor in troublesome insomnia or violent delirium; he claims being the first to administer the latter for this purpose.

We read, further on, that: "Cigarette-smoking, which has increased to an incredible extent of late in this country, is much more apt to give rise to nervous symptoms (than other forms of indulgence in tobacco), because of the tendency to almost constant indulgence and the inhalation of the smoke. There seems to be some doubt as to the poisonous agent in tobacco. Vogel says that the toxic properties of tobacco smoke are due to the presence of sulphide and cyanide of ammonia. Eulenberg could not find a trace of nicotin, but he and Vohl believed the poisonous substance to be pyridin and parvolin. Huebel, however, has found the amount of nicotin in one cigar sufficient to produce convulsions and death in a frog."

With regard to *hydrophobia*, we read: "I am convinced that no remedy can do good where the disease has already appeared, except, perhaps, curare, which has been tried; and in one case, where it was prescribed by Dr. Austin Flint, Sr., it is said to have saved the patient's life." Hysteria, hystero-epilepsy, catalepsy and Chorea are carefully studied.

In speaking of the treatment of neuralgic attacks, he says: "Chloroform has been used hypodermically by Bartholow, and with great success, and though I have produced abcesses in

this way, I am inclined now to acknowledge its value as a therapeutic measure.... .Tonga, the new Fiji remedy, has been recently recommended. It is excellent, especially in facial neuralgia, and may be given in doses of from ♏ X—♏ XX every two hours, until relief is obtained."

A great merit possessed by Doctor Hamilton's work is the number and quality of the illustrations with which it abounds.

Even the most casual reader cannot fail to be struck with the immense amount of erudition displayed by the author in the preparation of his book, and this is in the most modest, unassuming manner. It is scarcely possible to glance over any page, without meeting with the names of several authorities, whose statements are condensed in that masterly manner which indicates experience and impartiality. It is unnecessary to point out the typographical excellences of the volume, which are up to the standard adopted by the publishers.

T. L.

The Experimental Method in Medical Science. Second course of the Cartwright Lectures of the Alumni Association, College of Physicians and Surgeons, New York. Delivered January 24, January 31 and February 7, 1882. By John C. Dalton, M. D. 12mo., pp. 108. New York: G. P. Putnam's Sons. 1882. [Sold by Hawkins. Price in muslin, $1 25.]

The following are the subjects of these three lectures:

I. Galvani and Galvanism in the study of the Nervous System; II. Buffon and Bonnet in the Eighteenth Century; III. Nervous Degeneration and the theory of Sir Charles Bell.

The lectures are a critical exposition of the scientific contributions of the men above named, and also the more recent investigations of Waller, Turck and Charcot upon the physiology and pathology of particular regions of the brain. As might be expected from a teacher and writer of acknowledged authority, the subjects are discussed with great judgment and candor, and the reader will be much aided in forming a just appreciation of the true value of their labors.

The readers of this Journal may recollect that the first series of lectures on this foundation were delivered by Prof. Roberts

Bartholow in 1880, on the Antagonism between Medicines and between Remedies and Diseases. Those lectures were based on the author's experimental researches, and attracted deserved attention. S. S. H.

Electricity in Surgery. By John Butler, M. D. 8vo., pp. 109. New York: Boericke & Tafel. [Armand Hawkins, Medical Bookseller, 196½ Canal St.]

With the recent advance made in the therapeutics of electricity this little work is timely, as it aims to be a guide to the practitioner in the practical application of this agent.

Doubtless much of ill success following upon the use of electricity in medicine has been due to its improper application, and while hardly willing to accede to all that is claimed by the author for electro-therapy, still there is no question but that a proper knowledge of its manner of employment is essential to its success.

The author presumes a knowledge of electro-physics on the part of the reader, and consequently devotes his time only to giving practical advice to guide the physician. With this end in view, the work will be found of interest to those who desire to make use of electricity in the treatment of disease.

The most important portion of the work is that devoted to galvano-cautery, wherein the author makes clear the manner of using, and the different varieties of cauterizing instruments employed. S.

The Physiological and Therapeutic Action of the Sulphate of Quinine.—By Otis F. Manson, M. D., Richmond, Va. Reprint from the Transactions of the Medical Society of Virginia, 1882. 8vo. Pp. 69.

This essay, without offering any results of original research, is a good compilation of the conclusions reached by the most distinguished experimenters with the drug in our time, and in the preceding generation. The writer quotes freely from those authors, and his references form quite an extensive bibliography of the subject.

In regard to the *modus operandi* of quinine, the writer, though not original, is rather more individual in his views than

elsewhere, and here we shall be more particular in notice of his work. He observes: "It may be regarded as a self-evident proposition, that malaria is a *materies morbi*, which being absorbed by the blood and conveyed throughout the system, manifests a special affinity for the nervous centres. * * * These phenomena can only be due to the influence of an irritant poison circulating in the blood and impinging upon those portions of the nervous centres most readily impressible by the noxious agent. It is then upon IMPRESSIBILITY of the nervous centres, and especially of the cerebro-spinal system, that quinine exerts its influences. It obtunds, stupefies the impressionable centre, and renders the action of the poison ineffectual."

This view he believes to be sustained by the curative effect of other obtunding agents in malarial affections, particularly opium and chloroform.

The germ theory was long ago invoked by J. K. Mitchell and J. H. Salisbury, to account for the effects of malaria, and has lately gained great credit by the researches of Klebs and Tomasso-Crudeli. Though Dr. Manson does not name these authors nor mention their theories, it is clear that he has adopted them, or something akin to them. Now, it has long been known that a solution of quinine, of moderate strength, is rapidly fatal to that class of organisms in which the "gemiasma" of Salisbury and the "bacillus malariæ of" Klebs and Crudeli are found.

Other agents are known to be destructive to organic bodies, both vegetable and animal, such as arsenious acid, corrosive sublimate and carbolic acid. Arsenic is certainly anti-malarial, and carbolic acid has gained some credit for the same effect. It is not improbable that the great superiority of quinine as an anti-malarial agent consists in its tolerance, in large doses, by human beings.

As to the anti-malarial effect of opium and chloroform, it is as reasonable, *a priori*, to suppose that the disease-germs experience their benumbing influence as that the tenant of the germs should be so affected—even more reasonable, since the medicinal agent has much nearer relation to them in bulk, and

should therefore be more susceptible. Moreover, chloroform is known to destroy or suspend the vitality of low organisms.

A comparison might be drawn between the behavior and riddance of disease-germs and intestinal worms. The human organism has some power of casting out both by the emunctory organs, but enough remain to propagate and perpetuate their kind, except in case of those self-limited diseases which attack a person but once. The destruction or disabling of the troublesome guests for a sufficient length of time gives opportunity for their elimination and repair from their ravages.

Without denying the reasonableness of Dr. Manson's idea of the *modus operandi* of quinine, or its ability to account for the action of the drug, we venture the suggestion of the above theory as rather more reasonable, being more in harmony with accepted doctrines of the nature of disease germs and of the behavior of low organisms when subjected to certain agents.

The tonic use of quinine is overlooked, as well as the danger of producing abscess by the hypodermic mode, and of inducing abortion in pregnant women. S. S. H.

Atlas of Gynæcology and Obstetrics. Edited by Dr. A. Martin, Prof. Gynæcology, Univ. Berlin. Containing 475 black and 37 colored illustrations from the original designs of many leading authorities, supplemented by numerous illustrations from J. P. Maygrier's Nouvelles Demonstrations D'Accouchements. Elephant folio. A. E. Wilde & Co., Cincinnati. [Sold by Armand Hawkins, 196½ Canal street.]

The first four parts of this work received notice in our August issue of 1881. The fifteenth and last part is now out, making probably the most complete set of illustrations of this department of medicine extant. The extraordinary size of the page gives room for representing operations with figures of nearly life-size, or suitable for display in the class room. Each part contains four plates, with a page of explanatory text so arranged as to fall opposite the plate when the work is bound. Its appearance in numbers at $1 00 each is an inducement to subscribe to the work, which publishers have found quite effectual, and we doubt not it has had an extensive sale.

S. S. H.

Meteorological Summary—July.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temperature.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.082	84.8	67.0	N. W.	....	Mean Barometer, ———.
2	30.105	86.0	71.0	S. W.	.....	Highest Barometer, 30.175, 14th.
3	29 999	85.9	68.0	S. W.	.....	Lowest Barometer, 29.876, 4th.
4	29.916	83.6	72.0	West.	.02	Monthly Range of Barometer, 0.299.
5	29 988	78.3	53 0	North	....	Mean Temperature, ——.
6	30.032	78.8	53.0	S. E.	.....	Highest Temperature, 92.0, 1st, 3d.
7	30.008	81.4	66.0	East.	.01	Lowest Temperature, 69.8, 25th.
8	30.051	80.1	79.0	S. E.	.66	Monthly range, ——
9	30.100	77.7	86.0	South	.28	Greatest daily range of Temperature,
10	30.084	80.4	82.0	South	.91	14.5, 27th.
11	30.061	81.8	78.0	S. W.	.....	Least daily range of Temperature,
12	30.060	82 3	74.0	S. W.	.....	6.5, 26th.
13	30.099	80.0	72.0	East.	.20	Mean of Maximum Temperature, 86.6.
14	30.119	80.8	63.0	North	.....	Mean of Minimum Temperature, 75.5.
15	30.130	80.8	72.0	East.	.15	Mean daily range of Temperature, 11.1.
16	30 131	81.9	72.0	East.	1.30	Prevailing Direction of Wind, S. E.
17	30.111	81.1	72.0	East.	.03	Total movement of wind, 4135 miles.
18	30.080	81.6	74.0	South	.....	Highest Velocity of Wind and Direc-
19	30.072	79.7	78.0	East.	.....	tion 22 S. W.
20	30.101	78.7	86.0	East.	.36	Number of Clear Days, 3.
21	30.097	79.2	84.0	S. E.	.03	Number of fair days, 19.
22	30.098	78.3	85.0	S. E.	.06	No. of cloudy days on which no rain fell, 1
23	30.072	76.8	80.0	N. E.	.92	Total No. of days on which rain fell, 20
24	29.965	76.3	78.0	N. E.	.....	
25	29.986	76.3	76.9	N. E.	.....	
26	30.084	77.0	82.0	S. E.	.08	
27	30.127	79.2	80.0	South	.93	
28	30.097	80.6	81.0	S. E.	.33	
29	30.049	81.8	80.0	N. W.	.22	
30	30.047	81.8	80.0	S. E.	.07	
31	30.051	81.4	80.0	S. E.	.28	
Sums.	.....	....	....	.....	.....	
Means	30.064	80.5	75.0	S. E.	6.84	

COMPARATIVE TEMPERATURE.

1873.....	82. 4	1878.....	84.1
1874.....	81. 4	1879.....	82.9
1875.....	81. 8	1880.....	81.7
1876.....	83. 4	1881.....	....
1877.....	83. 7	1882.....	....

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873.....	6.27	1878.....	6.21
1874.....	12.93	1879.....	7.04
1875.....	6.57	1880.....	81.22
1876.....	4.73	1881.....	....
1877.....	6.41	1882.....	....

L. DUNNE, *Serg't, Sig. Corps, U. S. A.*

Mortality in New Orleans from July 15th, 1882, to August 12th. 1882, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
July 15	0	7	16	4	1	105
July 22	1	4	12	10	2	95
July 29	0	8	18	3	5	111
August 5	1	8	15	6	1	96
August 12	0	6	13	5	2	94
Total.....	2	33	74	28	11	501

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OCTOBER, 1882.

ORIGINAL COMMUNICATIONS.

Extracts from an Old History of Louisiana,

Translated by THOMAS LAYTON, M. D.,

And read before the Orleans Parish Medical Society, on Monday, June 26th, 1882.

Mr. President and Gentlemen:

For some time past my leisure moments have been employed in reading a number of the old histories of Louisiana.

Many of these works are scarce, all are interesting—filled as their pages are with quaint remarks, copious illustrations, broad recitals and descriptions of customs and manners; whilst several are of value to ourselves as giving an account of colonial practice of medicine and surgery in the primitive days when these writings were published, and relating the medicinal qualities of numerous indigenous plants. For these reasons I beg you will allow me to read to-night extracts which I have translated from the "Histoire de la Louisiane, par M. Le Page du Pratz," which closes about the year 1740, but which was published in three volumes, at Paris, in 1758.

I might add that I have found the study of other colonial historians equally interesting, but having selected a review of Du Pratz's work, as my subject for to-night, I will proceed to the consideration of the same without further prelude.

In the "*Histoire de la Louisiane par M. Le Page du Pratz, Paris*, MDCCLVIII, (1758)," the author states in the preface that,

"after having lived in the country for some years, I acquired a special knowledge of simples, of which I forwarded over three hundred to the Occidental Company, specifying their virtues." (Preface VII).

"There are but few days on which the sun does not shine in Louisiana; the rain falls only as the result of thunder storms; bad weather does not last long, and all traces of the same disappear in half an hour; the dew is, however, very copious and takes the place of rain. It will, therefore, be believed without difficulty, that the atmosphere is perfectly healthy; the blood is good; in that country men enjoy excellent health, are liable to but few diseases during their prime, and are not decrepit in old age, which is much greater than in France. Life is long and agreeable in Louisiana, for all who abstain from debauchery." Vol. I., pp. 140–141.

During his stay among the Natchez Indians, Du Pratz became afflicted with a lacrymal fistula; this he showed to M. de Saint Hilaire, an able surgeon, who had studied twelve years at the Hotel Dieu in Paris. M. de Saint Hilaire advised the application of a red hot iron, which did not please the sufferer. Thereupon the Great Sun of the Natchez tribe sent for his own native physician, who promised a cure by means of simples and water. He pounded the herbs together and rolled them into the shape of a ball, which he placed in a basin containing water. The face was to be dipped into this basin, the eye being opened under water. This was kept up for eight or ten days, after which Du Pratz says his fistula was entirely cured. Thereupon he lauds the skill of this and other Indian medicine men."

"The Occidental Company, on being informed that the Province produced a quantity of simples, whose properties, known to the savages, gave them such facility in curing all kinds of diseases, ordered M. de la Chaise, who came from France as Director General of the Colony, to have researches made after the simples, which might be suitable as medicines and dye-stuffs, and to employ for this purpose those among the French who might have acquired the secrets of the natives."

It was in this manner that Du Pratz came to send to France the 300 specimens, to which allusion has already been made. He was informed that these, on their arrival, had been planted in a special botanical garden. He is silent, however, as to the result of this experiment. Vol. I., pp. 207–212.

In describing a journey which he made to the country about Mobile, the same historian says:

"The soil and the water of Mobile are not only not fruitful of life to plants and fishes; the nature of the waters and of the territory also contributes towards preventing the multiplication of animals. I have been told by Madam Hubert, whose husband, at the time of my arrival, was intendant-commissary of the colony, that when the French occupied that post (*Mobile*), there were from seven to eight sterile women, all of whom conceived, after settling with their husbands on the banks of the River St. Louis (*by which name the Mississippi was then known*), on which the capital has been built, and to which the Establishment has been transferred." Vol. I. p. 268.

At this late and skeptical day, it is, to say the least, entertaining, to learn that Mississippi water plays a part in conception, as other writers on colonial history, whose works I have read, gravely assert.

Chapter XXV of vol. I is devoted to "Negroes: on the choice of negroes: their diseases: on the manner in which they should be treated in order to be cured: on the manner in which they should be governed.....Negroes are a species of men, who must be governed differently from Europeans, not because they are black or slaves, but because their ideas are quite dissimilar to those of the whites. In the first place, they are taught from childhood up, that the whites buy them only in order to drink their blood; this comes from the fact, that the first negroes, who saw Europeans drinking Bordeaux wine, imagined that this wine was blood, as it is of a dark red color, so that nothing but counter experience can disabuse their minds of this idea; as none of these experienced slaves, however, ever return to their own country, the same prejudice exists always in Guinea, from which they are drawn..... The first thing to be done when you purchase negroes, is to

have them visited by a skilful surgeon, who is at the same time an honest man, in order to ascertain if they have not some venereal or other disease: for this purpose they are to be stripped as naked as the hand, men and women alike; they are to be examined from the soles of the feet to the top of the head, finally, between the toes and fingers, in the mouth and ears, without excepting those parts which are naturally hidden, although they are then uncovered.

"You will enquire of your exa ining surgeon if he is acquainted with the disease called *pians* or (*yaws*), that is, the Guinea virus, which many French surgeons, although they may be skilled in the diseases of Europeans, are unable to cure; but take care, lest you be deceived, as your surgeon himself might make a mistake, therefore be present at the examination, and notice carefully whether you observe on any part of the body a portion of the negro's or negresses' skin, which, though it may be very black, may nevertheless be as polished as a mirror, and this without presenting any elevation or tumor; such observation is easily made, for the entire skin of a naked person is generally wrinkled. Thus, you can reject him, if you see these spots; there are always skilful surgeons present at the sale of newly arrived negroes, who purchase these; several even have made fortunes thereby; but they turn their secret to account, for themselves only. Scurvy is another fatal disease, with which many Guinea negroes are attacked; it is recognized by the condition of the gums; sometimes, however, the malady is so inveterate, that it appears externally, in which case there is scarcely any remedy. If any of my readers should be so unfortunate as to own a negro afflicted with either of these diseases, I am going to show how to save him, by placing him in such a condition that he may be radically cured by the surgeons, with whom I do not care to fall out: I must state that I learned this secret from a negro doctor, who was on the King's plantation, when I took charge thereof. *Pian* (*yaws*) must never be treated with the knife, which wou d produce even fatal results; but in order to succeed in op ing the *pian* (*yaws*), you must take iron rust reduced to an impalpable powder, and sifted through a sieve;

you will then moisten this powder with citron juice, until it offers the consistency of an ointment, which you will spread on linen greased with old fat, or fresh unsalted lard, if you can obtain no other; you will apply the ointment to the *pian*, and renew the same night and morning: in this way, the *pian* will open speedily and without requiring an incision. The opening having occurred, you will take a quantity of unsalted lard, as big as a goose egg, into which you will incorporate one ounce of good turpentine; then have a drachm of pulverized verdigris, steeped for half a day in good vinegar, which you will pour off, together with the superincumbent dregs, by tilting the vessel; drip the verdigris well on a rag, and add it to the remainder. All this is to be done without using fire. When everything will have been thoroughly mixed with a spatula, your ointment will be prepared, and you will apply it to the *pian*; next, make your negro sweat as much as possible, and he will be cured. Above all things, take care lest your surgeon should treat him with mercury, as I have seen some do, for it kills. With regard to scurvy, it is not less to be dreaded than the *pians*; however, you will be successful if you adopt the following plan exactly. Take cochlearia (scurvy grass), if any is at hand; also ground ivy, which is called St. John's weed by some, and fountain or brook cresses indifferently; if you cannot procure water cresses, use wild cresses; take these three herbs, or the two last, if you have no cochlearia, pound and moisten them with citron juice, so as to make a liquid paste, which the patient will keep constantly applied to both gums, except when eating, until the gums will have become healthy. At the same time, as a drink, you will give him only a ptisan made from two handfuls of the plants I have just named; these you will bruise entire, after having washed away the earth which may adhere to the roots or elsewhere; add a citron freshly cut into slices and pounded along with the herbs; then soak the whole in a pint of pure water, Paris measure; next place this compound in a vessel, along with a quantity of pulverized and purified salt of nitre, equal in size to that of a fair hazel nut; you will also add a little brown sugar, so as not to disgust the negro too easily. After

being kept in soak for a whole night, you will draw off this ptisan, and pass it through a cloth, with expression; fire is not to be used at all; such is the dose, for a bottle of water, Paris measure. But, as the patient is to drink two pints thereof daily, you may make several pints at once, observing the same proportions: this is to be kept up for some time. In these two diseases, it is necessary to feed the patients well, and to make them sweat; it would be a mistake to diet them; good food must be given, but in small quantities at a time; like every one else, a negro cannot stand remedies, if he be badly fed, and especially if he be dieted; the quantity, however, must be proportioned to the condition of the patient, and to the quality of the disease; besides, good nourishment is the best part of treatment for those who are accustomed to coarse food. The negro who let me into the secret of these two remedies, also taught me how to cure all the diseases to which women are subject, for negresses are not more exempt from these than white females.

Manner of Governing Negroes.

When a negro or a negress first comes to you, it is advisable to caress him, to give him something good to eat, along with a drink of brandy; it is also well to dress him, the same day, to give him a blanket and something to sleep on.....these marks of humanity flatter and attach them to their masters. .....Take care of them when they are sick, giving them remedies and food, which should be of better quality than that to which they are used; it is your interest to do so, as much for their preservation, as to attach them to yourself; for, although many Frenchmen say that negroes are ungrateful, I have found that it is very easy to make them affectionate, through kind treatment, and by doing them justice, as I will explain later.

Should a negress be confined, give her all the care that may be necessary; and let your wife, if you have one, not disdain to attend (to the slave) herself, or at least, to see that she wants for nothing. A Christian should attend to having these children baptized and instructed, since they have immortal

souls; the mother should receive an additional half ration and a pot of milk every day, in order to assist her in nourishing her child. Prudence requires that your negroes should be quartered at a sufficient distance to prevent yourself from being incommoded; they should however be close enough to enable you to watch what may be going on among them. When I say that you should not have them so near, that they may annoy you, I allude to the stench which is natural among some negro nations, such as the Congos, the Angolas, the Aradas and others; therefore it is advisable to have, in their camp, a bath tub (or tank) made of posts driven into the ground a foot or a foot and a half, at most; so that this depth of water can never be exceeded, lest the children should be drowned; a railing should also be placed around this tank to keep the smaller ones from falling in....." In building the negro quarrers, "so as to be less annoyed by their natural stench, care must be taken to establish the camp to the north of your house, or towards the northeast, as the winds which blow from these directions are never as warm as the others; the reason is, that the negro exhales an unbearable odor, only when he is warm.

What I have just said concerning the stench of those negroes who smell badly (1) should teach you, when you have to go out to them whilst at work, never to do so in the direction of the wind; and, you must never let them come near your children, for besides the bad atmosphere, nothing good, either in morals, or education or language can come of the connection. This leads me to conclude that a French father and his wife are hostile to their offspring when they employ black wet nurses; for milk being the purest extract of woman's blood, one must be a barbarous mother to allow a child to be nursed by a stranger of this kind; especially in a country like Louisiana, where mothers have every convenience in the way of assistance in carrying and attending to their children, whom they may thus have constantly under they eyes; the mother has therefore merely the slight trouble of nursing her

(1) Those who smell the worst are the least black.

child and ridding herself of the milk, which is its nourishment." After recommending that only Senegal negroes, who call themselves *Djolaufs*, be taken as domestics, Du Pratz adds: "The negroes from Senegal are however the blackest, still I have not met with any, who smelt badly." Du Pratz must evidently have been gifted with very sensitive nostrils.

In alluding to the necessity of punishing the blacks when they have done wrong, our author says: "Chastise them in proportion to the evil they have done; always with humanity, however, so that they may themselves acknowledge that they suffer deservedly; a christian is unworthy of the name, when he punishes cruelly." After the foregoing sentiment, it may seem somewhat inconsistent to find the following, a few lines further on: "After having had them whipped, have the sore spots washed with vinegar into which you will have put salt and pepper, and also a little gunpowder."

In describing the products of the country, Du Pratz mentions the persimmon tree, which the French residents of the colony call the *Placminier* (sic). "Its fruit is as big as a good sized egg; it has the shape of our mespilus, but its meat is sweeter and more delicate. This fruit is astringent. When it is ripe, the Indians make it into bread, which keeps from one year to another; and the efficacy of this bread, which is greater than that of the fruit, is such, that it checks every variety of loose bowels or dysentery; for this reason, it should be used prudently, and only after a purgative. To make this bread, the Indians crush the fruit in coarse sieves, in order to separate the flesh from the skin and seeds. With this flesh, which is like a thick mush, and by adding dough, they make loaves a foot and a half long, a foot wide, and of the thickness of one finger; then they dry either on a grating in an oven, or by exposure to the sun. When prepared by the latter process, the bread preserves a better taste. This is one of the articles which they sell to the French." Vol. II, pp. 18–19.

"The copal tree possesses two precious qualities; it is very common and its virtues are infinite; .....I will not undertake to detail all the virtues of copal balsam, not having been taught them all by the Indian physicians of Louisiana; who would be

as greatly surprised, did they know that we use it only for the purpose of making varnish, as they were, on seeing our surgeons bleed patients. I will therefore merely menti n what I have learned. This balsam is a very excellent febrifuge: ten or twelve drops are to be taken in broth, fasting and before meals; even should a larger quantity be used, it can do no harm, for it is too great a friend of nature. The Indian physicians purge before administering it. It cures wounds in two days time, without any bad results; it is also a sovereign remedy for all kinds of ulcers; its application should be preceded, for a few days, by that of a plaster of pounded ground ivy. It cures pneumonia; removes obstructions, frees from colic and all internal diseases, and rejoices the heart; in a word it possesses so many virtues, that I am delighted to learn, that new ones are being discovered daily, as belonging to it." Vol. II, pp. 27, 28, 29.

"The *Salsafras* (sic) is a large tree, whose name is well known to botanists, on account of its medicinal qualities..... The maple grows on hilly land.....A sweet syrup is extracted therefrom, by terebration, which I am assured is an excellent stomachic." Vol. II, p. 36.

"The elder tree is similar to that of France, except the leaf, which is more scalloped around the edges; the juice from its leaves, mixed with lard, is also a specific for hemorrhoids, as I know by experience." Vol. II, p. 48.

"The bearded bindweed is thus named owing to the bearded appendages, an inch long, crooked at the end, and coarser than horse-hair, with which its stalk is covered. It is particularly fond of attaching itself to the copal tree; and the sympathy (this word may be allowed me for the sake of brevity) which attracts it toward this tree is so great that, if it is growing between a copal and any other tree, it turns exclusively towards the copal, even should this be the more distant. It also grows to better advantage on the copal tree, and like the balsam of this latter, it possesses the power of curing fever, and I mention this after having proved the fact experimentally an infinite number of times. I was disappointed in none of these experiments, and the same is true for Mr. Prat, the elder,

King's physician at New Orleans, to whom I sent specimens at his written request. The Indian physicians use this simple against fever in the following manner: They take a piece of the bearded bindweed one finger in length; this they split up into as many fragments as possible and throw into about half a pint of water, Paris measure; they boil the whole until it is reduced one-third. The decoction is then strained, so as to make it clear, when the remedy is fit for use. They next purge the patient, and on the following day, when the attack of fever comes on, they make him drink one-third of this water of bind weed. It not unfrequently happens that he is cured at once; but if the fever returns, he is purged again, and the day following he is made to drink another third of the medicinal water, which seldom fails in its effect, on a second dose. It is simply for the sake of greater safety that the third part of the decoction is given. This remedy is bitter, in truth, but it strengthens the stomach, which is a precious advantage it possesses over cinchona, which is accused of producing a contrary effect.

"There is another convolvulus, resembling sarsaparilla, except that the leaves grow in clusters of three; it bears a fruit, which is as smooth as a hazel nut on one side, but as rough on the other as those small shells which are used as money in Guinea. I will say nothing with regard to its properties; they are but too well known by women in Louisiana, and by girls especially, who very often have recourse thereto .....Sarsaparilla grows naturally in Louisiana, and in quality it is as good as that from Mexico. It is so well known as to require no comment.

"China root partakes of the nature of the convolvulus and of the briar. It is covered with prickles, which are as hard as thorns, and its leaves are oblong like those of the convolvulus. .....Besides the sudorific properties, which it possesses in common with sarsaparilla, it also causes the hair to grow, and the Indian women use it successfully for this purpose. They take the root, cut it into small bits, which they boil, and then wash their heads with the water. I saw several of these women whose hair reached below the calf of the leg, and one in par-

ticular, in whom it fell to the instep.....Capillary grows better in Louisiana than in Canada, and is of at least as good quality, although the Canadian plant enjoys so exalted a reputation. It grows in the ravines on the hill sides, in places which it is impossible for the sun's most burning rays to reach. However numerous may be the qualities recognized as being inherent to our French capillary, the Indian physicians are nevertheless acquainted with many more than ourselves." Vol. II, pp. 54 to 58.

"The rattle-snake plant, called by the Indians *Oudla-Coudlogouille*, which signifies medicine against the rattle-snake, has for its root an onion like that of the tuberose, only it is twice the size of this last; the leaves resemble those of the tuberose; their color and shape are the same; on their under surface they show five colored spots; they are twice as broad and longer, however, than the tuberose leaves, and are studded along their edges with very sharp thorns, the leaf culminating in a stiff point. Its stalk is about three feet high; at the top, there are five or six sprigs, separated one from the other, each bearing a purple flower composed of five petals, one inch broad, and always cup shaped. When the flower falls off, a head remains; this is as big as a small sized nut, and somewhat resembles a poppy head. This head is divided into quarters, by a kind of moulding or tar, and in each division are found four black seeds, as flat as lozenges and of equal thickness throughout, and as big as a good sized lentil. When this head is ripe, if it be shaken, it gives a sound similar to that made by a rattle snake's tail, thereby seeming to point to the virtues of the plant; for it is the specific remedy against the bite of this dangerous reptile. Any one who may have been bitten should take one of these onions, bite out a sufficiently big piece, chew it up, and apply it to the wound, over which it should be attached; in four or five hours time all the venom will have been extracted, and no bad consequences need be feared.

"Ground-Ivy, in the belief of the Indian physicians, has many more properties than our botanists recognize: among others, when given in decoction, it eases women in labor; cures ulcers, when crushed and laid upon the ulcerated spot;

but, above all, I must not omit to mention among its virtues, that of being sovereign in headache; for which it is generally said there is no remedy; its green leaves crushed in sufficient quantity, and applied to the head as a poultice, cure promptly. I have thought of obviating the difficulty of using the remedy upon a person who has hair, by extracting its salts. I did this with the view of relieving a friend subject to sick headache; I put some of this (extract) in arquebusade water, of which I advised him to aspirate a few drops through his nostrils, with all his might; on doing this two or three times, when seized with sick headache, he was relieved in a few moments." Vol. II, pp. 60–62.

Further on, in speaking of bear grease or oil, after describing the manner in which it is prepared, and vaunting its excellence, Du Pratz says: "It is, at the same time, a sovereign remedy for pains of all kinds, and it cured me of rheumatism in the shoulder." Vol. II, p. 90. He adds: "Frogs are very common, in lower Louisiana especially, notwithstanding the great numbers destroyed by snakes. Some become enormously large, and their croaking astonishes those who are not accustomed thereto, particularly when (the creature) is lodged in a hollow tree. Sometimes frogs are met with a foot, or more, in length." Vol. II, p. 101. We also read the following, in this interesting narrative: "I never saw moles in Louisiana, nor did I hear of the existence of any." Vol. II, p. 108.

"The *frappes-d'abord* (sic) [a well-known species of mosquito] are long and yellow flies; they are thus named (strike immediately), because they sting as soon as they alight.....The Spanish fly is very abundant; it is larger than the European variety, and its acid is so intense, that even if it merely touches the skin the bleb appears at once, and is of tolerable size." Vol, II, p. 146.

"Mosquitoes have made themselves a great reputation throughout America, by their numbers, the annoyance of their buzzing and the venom of their sting, which causes an unbearable itching, and often forms as many small ulcers (as there are bites), unless care be taken to cover with saliva the bitten

spot." Our author then adds, that he has found the fumes of sulphur very efficacious in killing these insects. Vol. II, p. 148.

Du Pratz continues: "Those who have been in the neighborhood of rivers, have doubtless desired to eat fish, and have endeavored to take advantage of the vituals offered them by the locality; besides, it was only necessary for a pregnant woman to have laid eyes upon fine fish, to wish for some; the complacency of the husband on the one hand, and his own desire to partake of this food on the other, gave rise to the manufacture of nets for the taking of fish; these nets have meshes like ours, and are made with the bark of the linden tree." Vol. II, pp. 180, 181.

In describing the beds of the Indians, he says: "These beds, such as I have just described them, were doubtless not smooth enough to satisfy the effeminacy of these (Indian) women, however rustic they may be thought to be, or however rustic they may be in reality; this would lead to the belief that the sex is delicate in all countries; they (therefore) bethought themselves of making mats with splints of cane, which, when laid upon the bottom of the bed, made it softer and more even." Vol. II, p. 182.

In speaking of the clothing and ornaments worn by the Indians of Louisiana, Du Pratz says: "The boys and girls wear no clothing; but when the girls have reached the age of from eight to ten years, they are covered from the waist to the instep by a fringe made of mulberry fibres, attached to a band which is fastened below the belly; there is also another band above the navel, which joins the first posteriorly; between these two bands the belly is covered by a net-work which is fastened thereto, and there is nothing behind, except two big strings, each of which ends in a tassel. Boys are not clad until they are between twelve and thirteen years old." Vol. II, p. 193.

In mentioning the Indian practice of tattooing, the historian writes as follows: "However simple this operation may be, it causes the body to swell considerably, sometimes gives fever, and would make the tattooed person extremely ill, if he did not attend very seriously, so long as the swelling lasts, not to

eat anything but wheat or corn, to drink water only, and to abstain from connection with women." Vol. II, pp. 189–190.

Chapter XVI of Volume II is devoted to the "History or Description of the Indian Nations of Louisiana." Here Du Pratz writes: "I have said that Nature, not less than warfare, contributes towards the destruction of these tribes. Nature and warfare are two maladies to which all the peoples of the earth are subject; but all do not die from these maladies as do the Indians of the Provinces; and although the native physicians are very expert in their science, their learning becomes of no avail in small-pox and against the consequences of colds; the reason for which I will now explain.

"When small-pox attacks a nation (a tribe), in a short time its ravages are very destructive. An entire family lives in the same hut; thus when one person takes the disease, it is the more readily communicated to all the inmates of the cabin, as light and air only find admittance through the door, which is not always four feet in height by two in breadth. The more aged escape death with difficulty, because age and the quality of food contribute to the fatal result. With regard to the young people, all who are not well watched die through their own fault. These savages are naturally clean, and cannot bear to have their bodies covered with pustules, as happens in this disease; they run with all their might to throw themselves into the water, for the purpose of washing; they do this as soon as they see none of their relatives are present to prevent them from going to clean themselves; and it is well known that a bath of this kind is harmful and even fatal to those who have small-pox. The *Chat-Kas* (Choctaws), who are naturally dirty, are also less liable to an accident of this kind, and they are far more numerous than all the other tribes.

"Colds, which are very common in winter, also carry off many Indians; during this season, their huts are warmer, owing to fires being kept up night and day, and because the door is the only aperture; thus the atmosphere is neither cold nor temperate, but always warm; so that, when they have occasion to go out, the cold strikes them, and its consequences are nearly always very disastrous." Vol. II, pp. 205 to 207. In

chapter XIX of this same volume, it is question of the site on which New Orleans was established; here the author remarks as follows: "I can easily imagine, that if a city were to be built in this Province, at the present time, a location would be selected, high enough to be beyond the reach of overflows; and in which the bottom would be solid enough to permit the erection of large stone buildings, and where freestone would be found near the city. Those who have penetrated into the country to a certain distance, and who have not met with stones, not even with the smallest pebbles on going over more than a hundred consecutive leagues of ground, will doubtless tell me that this is an impossible proposition, since they saw no stones fit for building purposes in the districts which they traversed. I might reply, by saying to them that they have eyes, but see not. However, I will admit that all men are not obliged to be aware of the fact that there are stones and quarries beneath a soil, of which they may only desire to know what are its qualities with reference to what they wish to sow or plant; but an architect is bound to know more; I have studied the nature of this country closely, and therein I have discovered quarries; and if there were any in the colony I could not but find them, because my business and profession as an architect must necessarily have given me the facility for such discoveries." Vol. II, pp. 261 to 262.

Chapter XXII of volume II deals with the manners and customs of the Louisiana Indians. We read on this subject: "I have always been inclined to believe that the care, which they (the savages) take of their children from the moment they are born, contributed in a great measure to the fact of their being well built, although the climate takes part in this result also, for the French Creoles of Louisiana are all tall, well formed and of healthy blood.

"As soon as an Indian woman is confined she goes to the waters' edge, where she washes herself as well as her child; hence she returns to her bed, and places the child in the cradle....this is very light, and lies on the bed of the mother, who can thus easily suckle her child, which, being in a warm hut, cannot take cold, however imperfectly it may be clad.

....The Indian children are white when they are born; but they darken, because they are rubbed with bear grease when small, in order to expose them to the sun. They are allowed to crawl on all fours, without making them use their legs for walking, as these are too weak to support the weight of the body. They are rubbed with oil for two reasons; first, to render their muscles more flexible, and secondly, to prevent the flies from stinging them, when they are thus entirely naked and abandoned to themselves. They are not made to stand on their legs until they are over a year old; and when they begin to straighten themselves up, they are always attended by a young girl, aged from ten to twelve years, who holds them under the armpits. They are allowed to nurse as long as they choose, unless the mothers become pregnant, when they are weaned." Pp. 309 to 312.

"When youths and maidens have reached the full age of puberty, they frequent each other's society familiarly, and are at liberty to do so; the girls knowing that after marriage they will no longer be mistresses of their hearts, understand full well how to dispose of these to their own advantage, in making up their wardrobe, at the expense of their pleasures, for in that country, just as elsewhere, the rule holds good: nothing for nothing. Far from the future husband's seeing anything to object to in this, on the contrary, he esteems the merits of his intended wife to be proportionate to the fruits she has produced; when once married, however, neither husband nor wife indulges in any amorous escapades, because their hearts are no longer their own. The men may repudiate their wives, but separations occur so rarely, that during the eight years in which I lived as the neighbor of these people, I only saw this happen in one instance; and even here, it was due to the fact that the woman was very bad, which the Natchez as well as the French admitted to be the truth; on parting, each parent took the children of his or her own sex.

"Besides, it is not seen in their marriages, that the women bring strange children in to their husbands; unfortunately they are too well instructed in a certain art by other females, for this ever to happen." Vol. II, pp. 386, 387.

"When the Indians are sick they eat no fish, and but little meat; in fact, they abstain completely, if the nature of the disease requires this, they then use only big hominy or gruel cooked in meat broth; if the patient grows worse, they cook a small quantity of coarse gruel in the same flesh broth, which is the only thing given, and which proves beneficial.

"As soon as a man becomes unwell, his wife sleeps with another woman, on the bed which is either across the head or the foot of the one on which the sick person lies; the husband of this other woman (literally: '*this neighboring woman*') seeks other sleeping quarters; in this manner things are so arranged that the wife is at hand to nurse her husband, and without putting him to any inconvenience." Vol. III, pp. 12, 13.

In 1726, after having spent eight years at the post of Natchez, Du Pratz returned to New Orleans, where, at the request of the Intendant Commissary, Delachaise, and of Perrier, the Governor, he accepted the administration of the Company's plantation, which shortly after became the King's. He describes the improvements introduced by himself in the management of the place; among others, he mentions having enclosed the negro camp with a strong palisade, "in which there was but one gate, the only opening by which the negroes could leave camp; outside of this gate I had two cabins built, one for the white overseer, and the other as a warehouse for remedies, and a place where wounds might be dressed. A young negro, who waited upon the surgeon, lived and slept in the warehouse, so as to be on hand, in order to bleed, or to make a first dressing, should urgency require. I learned several years ago that this negro was one of the good surgeons of the colony. I was in the habit of seeing to it that care was taken of the sick and of women in confinement; I had milk given to these last, and increased their rations, which did not prevent me from having them chastised according to their deserts, whenever they, in any manner, failed in their duty." Vol. III., pp. 227–228.

After the Natchez massacre, the French women who had escaped death were sent to New Orleans, where, on their arrival, "they were lodged at the Hotel Dieu, by Mr. Dela-

chaise, Intendant Commissary, who took all possible measures for the re-establishment of their health, by means of good nourishment and remedies, such as their weakened constitutions might require. These poor women had been plundered of nearly everything by the Natchez; the *Chatkas* (Choctaws) took the little which the former had respected, and which the *woman-Sun* (a female chieftain among the Natchez) had given them out of compassion; they were thus, so to say, entirely naked; they were clad, and all necessaries were tendered them. Those women whose husbands had escaped the massacre rejoined their consorts, and the widows were not long in casting their weeds aside; all those persons who did not fall victims to the disaster which occurred at this post would be extremely ungrateful if they did not pray to God for the late Mr. Delachaise." Vol. III, pp. 296–297.

Du Pratz is of the opinion that the frequent wars between the French and the Indians, in Louisiana, were due to the fact that the former were too familiar with the latter. He says: "The French traders are generally young and inexperienced men, who, in order to gain the good will of the tribes, teach them things which are prejudicial to our interests.....this familiarity is also an occasion for vice, whence result dangerous diseases and the corruption of the blood, which, in this colony, is naturally very pure; those persons who frequent the natives believe themselves authorized to indulge in vice, owing to the custom which the savages have of giving up their daughters to guests, when these arrive; this results in injuring their health, and is also detrimental to their business." Vol. III., pp. 329–330.

In describing the commercial products of Louisiana, the historian says: "To this commerce may be added certain drugs suitable for medical and dyeing purposes. With reference to the former, Louisiana produces sassafras, China root, sarsaparilla, but above all, that excellent copal balsam, whose well known virtues will be the means of saving the lives of many persons. It is to be hoped that the members of the faculty will give themselves the trouble of becoming ac-

quainted with these virtues, for the sake of their own glory and that of the public health." Vol. III, p. 385.

Higher up, we have seen that our author expresses his own convictions, and those of a lady friend, with regard to the fecundating properties of Mississippi water. Now, way off, at the end of the third volume of his narrative, we find him reverting to this subject, in the following terms: "To all that I have said concerning Louisiana, I can add, as being one of the great advantages enjoyed by that country, the property which the water of the river Saint Louis (for such, in those days was the name given to our Mississippi), has of rendering women likely to become fecundated. If the intentions of the Company had been carried out, and its orders been executed, no doubt this colony would to-day be very strong, and that it would contain numerous youths, who would resist the allurements of any other climate, captivated, as they would be, by the beauty of their own. These young people would turn to good account the wealth of their country, and speedily multiplying they would offer the mother country assistance in the shape of men, vessels, and many other items, which should not be disdained." Vol. III, p. 393.

Plegmasia Alba Dolens.

Report of a case by C. J. BICKHAM, M. D., New Orleans.

Mr. President and Gentlemen:

Mrs. D———, a lady of delicate lymphatic temperament and constitution, was confined with her first child on February 4th, 1882, after suffering in labor seven hours and a half. She had experienced during the seventh, eighth and ninth months, weak, faint feelings, *very frequently*, and these spells were always accompanied with great numbness below the knees. The labor was natural, and she gave birth to a child (a son) weighing (10) ten pounds, with considerable laceration of the perineum, down to near the splineter ani, in spite of the best support that could be given. I am in the habit of supporting the perineum by endeavoring to press it, not back,

but up over the head, as it were, towards the pubis. I regretted that I had not slit the perineum latterly with scissors, which I think is good practice, in these tight cases; however, I immediately put in three deep silver wire sutures, and it almost wholly healed by first intention in a few days. There was a small opening between the anterior and middle sutures, which healed readily, by a couple of applications of a stick of nitrate of silver. On account of the laceration, and some little trouble and fever from sore nipples for a day or two, as a precautionary measure, I kept her in bed a little longer than usual.

On the 17th day of February, the thirteenth from parturition, by my permission she first sat up, being quite well essentially, and after sitting up about two hours fainted in the chair, and was in this condition and insensible, it was believed, about fifteen minutes. The patient at first had had a very efficient nurse, but she was called away, and a very ignorant, nervous and inexperienced one substituted, who was alone at the time and knew not what to do, and it is a wonder the patient did not die. In a short time after being put in bed she had a reactive fever, and awoke on the morning of the 18th of February, next day, with intense pain in the calf of the left leg, which increased, accompanied with swelling and stiffness of the knee, calf and ankle—the swelling reaching nearly to the hip. The swelling in this limb reached its acme at the termination of the fourth day, and gradually decreased, with pain, not constant, but at intervals, only in the flesh, not seeming to be in the bone. The calf was most affected, and the inflammation, pain and swelling subsided essentially in about two weeks, leaving a sore, helpless condition of the part. During these two weeks there was slight pain in the right leg, but no apparent inflammation or swelling there.

On the morning of March 1st there was pain and some swelling in the lower right iliac region, hip and thigh, then in the knee, calf and ankle.

The pain in this limb was great and constant, and more in the bone than externally, the reverse of the left. It was most severe in the thigh and knee. There was very great swelling

from the toes to the waist, and in the right labium. Accompanying the inflammation of this limb, such was the great sensitiveness, pain and utter helplessness of the patient, that she could not use any vessel for either the urine or fæces, and I gave on one occasion chloroform by inhalation, in order to place her on the vessel after having administered an injection myself, and on account of the inconvenience and excoriation of the urine passed in the ordinary way, it was for some time drawn off; and this, added to the sensitiveness of the engorged parts, induced, or seemed to, a urethro-cystitis, which gave (and is giving to this day) great pain and trouble. Notwithstanding the very free use of opiates in this case, from necessity, there was most of the time, during the inflammation in the right leg particularly, severe pains in the stomach and bowels, with a tendency to diarrhœa.

The swelling began to decrease about the end of the fourth week, leaving great soreness, of the knee particularly. She sat up the first time again on the 8th of April about two hours, and again the next day, but on the day following relapsed into fever. On the 19th she again got up, and has continued to improve since, but is yet, to a great extent, helpless in the right leg, and is troubled with the bladder, though the swelling is almost gone, and there will not be in this case, as there is in many of the kind, permanent infiltration and induration of the limb entailed, and the patient maimed ever afterwards.

Remarks: The cause in this case is obscure. Was there a predisposition given by the pressure upon the lower venous trunks during the latter months of pregnancy, and upon the nerves, as evidenced by the numbness? Was the temperament a predisposing cause? And, what was the exciting cause or causes? There seemed to be no septicæmia. The lochia were uniform, free, and never offensive, the parts were assiduously cleansed and disinfected twice daily. Could the prolonged fainting fit, on the 13th day, whilst in the hands of that ignorant nurse have been the starting point? I verily believe it was. In this prolonged faint the circulation was almost at a stand, and might not some of the veins have become so gorged and blocked, the blood probably coagulating

in them, as to have started this dreadful chain of pathological phenomena? Here was an almost universal embolic condition of the venous circulation, and is it not reasonable to assign the badly managed fainting fit, as the cause?

The general treatment in this case was a sustaining tonic and soothing one. She was fed liberally and given opiates freely to relieve and render the pain tolerable, and when I say tolerable, it is saying all that can be said, for the patient would cry out so as to be heard a half square often. The limbs, especially the right, were too painful to handle, and hence the local treatment required nice and great care. In the acute and progressive stage the limbs were enveloped with cotton batting and this surrounded by oiled silk. This dressing was so arranged as to open on the upper part of the limb, which was repeated several times a day, and warm camphorated oil poured all along up and down the limb, and immediately hermetically sealed or covered with the batting surrounded with the oiled silk, the limb, first of all, before this dressing was applied, being elevated as high as possible from the groin to the foot on soft pillows, so as to act mechanically on the circulation on the syphon principle. Other applications, such as warm poultices, liniments, extract of belladonna, mercurial ointment and vaseline mixed in due proportions, etc., were tried, but the best, decidedly, was the warm *camphorated* oil surrounded by the batting and oiled silk in the elevated position. As soon as the tenseness, swelling and pain subsided sufficiently to permit pitting to be made by pressure, bandages were applied with very good effect, especially the rubber bandage, but it requires to be put on with great care to adapt the pressure properly, so as not to inflict pain and yet be sufficiently firm. This case is interesting in many points—first, as to its predisposing and exciting causes; in the fact of its confirming the common observation of its generally appearing in the left; in the fact of the same thing following in the right and in a much more severe form, both of which are very uncommon; it is interesting in the fact of the sad, prolonged and laborious attention required upon the part of the attendant; and in the fact of the great danger, in all cases similar, of fa-

tal embolism occurring; besides, the many other fatal issues that it may give rise to, as abscesses, local and metastatic, septicæmia, etc., etc., but I have already detained you too long this evening.

It is now three months and two days since confinement, and the patient is in much better condition than most of these cases equally bad, and why? The entailed bad condition of the limb, or limbs heretofore, has been due to want of early elevation, careful and prolonged bandaging, and proper tonic treatment, both constitutional and local, favoring absorption and discussion of the effused matters.

Some Remarks on a Peculiar Type of Typhoid Fever,

BY LUTHER SEXTON, M. D.

It is not with a view of advancing any new idea in the etiology, pathology or treatment of typhoid fever that I undertake to record some notes of cases, which occurred at Wesson, Miss., during last summer and fall; but to submit to the consideration of the profession a peculiar type of fever, which prevailed at several towns in the State, and at some with a large mortality. Four hundred cases of this fever occurred at the manufacturing town of Wesson, Miss., with a mortality of about 15 per cent. In my opinion, all such epidemics should be reported to the profession, and this is the apology I offer for the following remarks.

Before coming directly to my subject, I will preface my remarks by a short description of the town of Wesson, and its sanitary condition, as I consider this an important factor in the etiology of the fever. It is a small town of twenty-five hundred inhabitants, located on the Chicago, St. Louis and N. O. Railroad, about one hundred and forty miles from New Orleans. It is the second highest point on the above mentioned railroad, and has a splendid natural drainage, owing to its being about the crest of the hills, which divided the streams that flow east into the Pearl and west into the Mississippi river. At a casual glance of the place, one would think it the town "par

excellence" for pure "pine air" and all other conditions conducive to good health; but a few months' practice in the place tends very materially toward changing the conclusions so hastily drawn. The population of Wesson is composed principally of the poorer classes, gathered from all sections of the State, whose ideas of personal preservation are very crude, and who disobey the most ordinary laws of good sanitation (and this, too, when they sometimes know better). Many of them are from the swamp, and are pictures of the ravages of the malaria of that section. Others are equally poorly constituted, from poor food, bad ventilation and over crowding. With this class of patients, literally physiological wrecks before they contract the fever, the high mortality of 15 per cent. is explained. The tenant houses which they occupy are poorly constructed; they are built on the double cottage plan, with three rooms on each side, two of which are occupied by from eight to ten persons ordinarily, the other being used for kitchen and dining room. They have no halls in the houses and a great sparsity of doors and windows. The privies are small, rarely enclosed, and have no pits or pails. Some are built over the gutters, and the excrement is washed down by the next rain with which the innocent neighbor quenches his thirst. Most of them have been built for eight years, and a disinfectant solution is unknown to them. They are rarely cleaned, in fact, all the conditions necessary to the propagation of disease are rife in them.

Just in the rear of the factory three privies, three stories high, are built with tanks over them. In wet weather they are kept moderately clean, but during the long drouths of summer are very offensive and disagreeable, especially to those occupying the ground floors. Another possible factor in the production of this fever is the emanations from ponds, hog-pens, gutters, etc., which are very numerous in the town limits, and whose sanitary condition is sadly neglected. Still another point: some three or four acres just around the mills are covered with green pine wood undergoing decomposition. The sickness of new countries, newly cleared fields, and around saw mills, is so proverbial, that comment upon it is unneces-

sary. Here these conditions are literally hauled and put down in the vicinity of these operatives. I would remark here that the fever was worst among the young lady weavers, occupying the first floor, with the privies just described on one side and this immense pile of wood and rotting bark on the other. In my opinion, these were the chief causes of the fever, for who can estimate the bad air circulating between these two last nuisances.

With this short exposition of the sanitary condition of the town I will close, lest I should tire your patience before I reach my subject. But what I have said I deemed necessary, since the fever I am about to describe was undoubtedly a type of typhoid, and we have to account for its origin in the town, if possible, as it developed here, without any communication with any other infected point that could be made out. What is known as the Wesson fever first broke out in July, of 1881, after a long spell of dry weather. The first family taking it was Mrs. McDonald's. It was soon followed by outbreaks in other families, going on increasing, it was the disease of the town, as many as eighty or one hundred cases suffering at one time of the same fever. For the sake of brevity, I will give a clinical history of two typical cases of the fever. 1. Hattie G., aet. five years, was born in Mississippi; has always lived in the State. Has enjoyed perfect health up to the time of present illness. When she contracted the fever she had been living near cases suffering from it, but not in absolute contact with any of them. On Jan. 17th she was taken with a slight chill, after several days of malaise, complained of severe pain in the back of the neck, said her "neck felt as if broken." This continued for several days, the fever increasing slightly every day—some higher in the evening than in the morning, ranging from 101° to 102° F., about one degree higher in the evening than in the morning, occasionally the same.

About the 12th day the fever was at its maximum, reaching 103° F. The pulse at this time was 120 and rather feeble. Nervous symptoms developed early in this case, at the end of the first week, prostration was as great as ordinarily at the end of the second; about the 8th day great mental hebitude

was present, could hardly rouse the patient, and when awake was peevish and fretful. Tossing the head from side to side was a prominent symptom, and was considered a very unfavorable one. She complained of stiffness in the spine, slight opisthotonos being present. Tongue was covered with a white fur, red at edges, pointed tip, impression of teeth on either side, sordes on teeth, sore mouth, with a general peeling off of the mucous membrane. The gums did not bleed, but were red and spongy, some dysphagia about the 10th day, nausea and vomiting were common, no desire for food, but when the patient was urged to take anything, it was often regurgitated or vomited. The bowels were constipated in the beginning of the attack. Tympanitis was marked in the case, and about the 10th day was followed by diarrhœa, watery in character, with a dark grumous sediment in it. There was no special tenderness over the right iliac region, but general tenderness over the whole abdomen; no discharge of blood from the bowels (but this was a common symptom in other cases). The skin was sallow,soon it became slightly jaundiced, to be followed by a general paleness. Rose colored spots were looked for throughout the attack, but did not appear. Sudamina were present in many, occasionally subcutaneous effusions of blood. Sores occurred on the head of the little patient, which were very intractable to treatment. Enlargement of the cervical lymphatics was a marked symptom in this, as in other cases; lymphatics elsewhere were seldom involved. Parotid gland was the seat of severe inflammation, but it did not suppurate in this or any other case during the epidemic. Hair loosened after convalescing, this was the case with many. Enlargement of the spleen or liver was not noticed, in fact it was exceptional for them to be enlarged. The urine was scanty, highly colored, though a considerable quantity of water was ingested. In several cases there was a slight trace of albumen, but it was absent in the majority of cases. I will bring the clinical history of the case to a close by stating convalescence to have been very slow, but complete after four weeks' suffering. The second case I would like to call attention to show more of the malarial element.

In fact it was so marked in the case by the tertian type of ague, that I decided I had to deal with that variety of fevers, and directed my treatment accordingly, as you will see in the following notes: Case II, Miss J. W., æt. 20, was born and raised in this State, is acclimated, has had most of the diseases common to Mississippi, but was in perfect health when taken with the fever. She was a weaver in the mills, occupying the ground floor, and after one week of general indisposition and malaise, on the 27th January, was taken with a chill lasting about one hour, followed by the fever and sweating stage common in intermittent fever. On January 28th, she was up, but complained of feeling badly. January 29th, had another chill, and at this juncture I was called to the case; found the tongue coated, bad taste in the mouth, frontal headache, deep seated pain in the bones, temperature 101° Fh., pulse 105 pr. minute. Supposing the case to be one of intermittent fever, and the bowels being constipated, I ordered five grains of calomel with ten grains of soda. This was followed by a saline purge next morning. The fever seeming to continue I tried the abortive plan of treatment, viz: 25, 20, 15, 10 gr. doses of quinine every day. The first dose produced some head symptoms, roaring in the ears, headache, in addition to this, most profuse perspiration, but the fever returned the same evening. The next dose seemed to have pretty much the same effect, still the fever continued and so on, till I found quinine to have no influence whatever over the fever, and this assisted me materially in making the diagnosis. On the morning of the 30th, temperature 101½° Fh., pulse 95, respiration about 20 per minute, some pain on drawing a deep breath, a pleuritic stitch on the right side. Evening, temperature 103° Fh., followed by a restless night; ordered pot. bromide and hyd. chloral to produce sleep. January 31st, temperature 102°, pulse 110, respiration 22, pain in the side more severe, hacking cough, bowels constipated, but no gurgling or tympanitis. Temperature in the evening 103°, general indisposition to talk. February 1st, found more of the typhoid symptoms present, but a tendency toward intermittency by good and bad days. At this juncture I put the patient upon tr. iodine and carbolic acid, of which Dr. Bartholow speaks so

highly in his work on practice. From this time on, the fever ran its course with the usual symptoms of typhoid, viz: Dry cough, without expectoration, considerable pain from right sided pleurisy, redness of pharynx with increased respiration, "severe pain in bones," at night restless, hemicrania, slight delirium, some muttering during sleep, general prostration with hyperesthesia, constant pain over the spine, tongue white and furred at first, soon became pointed and red at edges, brownish coat down center, impression of teeth on either side, some aphthous patches were found in the mouth, with sordes on the teeth, nausea was common, she became disgusted with beef tea, milk punch, etc., that were ordered every five hours for her nourishment.

About the tenth day, a diarrhœa set in; this, however, was soon checked. The discharges were not particularly like typhoid stools. There was some tenderness over the whole abdomen, but not much tympanitis in this case, and no gurgling over the right inguinal region. Temp., as the chart will show, was some higher in the evening than in the morning; this was by no means an invariable rule, as one would expect in typhoid fever. There was a good day and a bad one throughout the whole attack. This was the rule in many cases during the epidemic. There was no swelling of glands in this case, either of the parotid or of the lymphatics: kidneys acted as usual in continued fevers, urine was scanty and highly colored, acid reaction, contained no albumen. The patient was of bilious temperament, the skin became slightly jaundiced in the first of the attack, and did not clear up during the whole of her illness. I watched closely for the lenticular rose colored spots, but none appeared, in fact, they were not often found in any of these cases, with every other symptom of typhoid fever, even gurgling over the right inguinal region. Skin was bluish where it was thin, showing the sluggish capillary circulation. Sudamina were not noticed in this case, but it was common in many others. The temperature reached its climax about the twelfth day, when it was 104° Fh. It gradually decreased for sixteen days, when the patient was entirely free from fever. After a protracted convalescence, she finally recovered. To

the clinical histories of above mentioned cases, both of which recovered, we might add some symptons of those patients less fortunate, who only found relief from their pain in the arms of death. But I will not tire patience with any more detailed accounts, but simply state that those terminating fatally either died of hemorrhage from the bowels, perforation and collapse, or from general exhaustion. With the foregoing symptoms in four hundred cases, in a manufacturing town in one summer, with the insanitary conditions mentioned above, even though some of the prominent symptons of typhoid fever are absent, and many of the malarial present, I think the diagnosis of typhoid fever is justifiable. With this conviction forced upon me for want of any better explanation of the fever, I began a process of investigation to try and ferret out the cause of the fever, and as a matter of course, my suspicion was the water supply.

Since the pond from which the mills get their supply is upon a higher level than several of the wells in the neighborhood of the pond, the veins which come from the sides of the hills are often covered by rises in the pond after heavy rains, and on the syphon principle it is reasonable to suppose that the current of water might be changed and the wells become contaminated from the pond.

I would observe here that the first cases that occurred in the town were not more than two hundred yards above this pond, and the nature of the disease not being fully made out, the stools were not disinfected and at the succeeding rains were washed down into this pond in common with the drainage from at least a dozen other privies. All the first cases that occurred were in the vicinity of this pond. Thus the speculation that the pond was the centre of infection is at least borne out by one fact. Twelve hours out of twenty-four all the operatives use water from one well. This well is about fifty feet deep, curbed with brick, closed at the top, the water being raised by an iron pump, which is nearly always running. It is located about fifty feet from the privies at the rear of the factory and about sixty feet from the pile of decomposing wood and bark of many years' accumulation. I procured a sample

of water from this and from three other wells, generally used, where the fever was most prevalent, and sent them to Professor Johnson, Chemist, Charity Hospital, New Orleans, and to Dr. Schmidt, Pathologist of the same institution, for chemical and microscopic examination. I submit their examination as reported by Dr. A. M. McShane.

"Well No. 1 (the one most generally used) possessed a very slight odor and a weakly alkaline reaction. It did not reduce permanganate of potash, thus showing the absence of organic matter. Microscopically it presented animal and vegetable organisms, algæ, etc. I may here observe that all the specimens contained these organisms, which are common in well water, Wells Nos. 3 and 4 contained them in greater abundance than the others (these wells supplied those that were first taken with the fever). General Well No. 2 also possessed a slight odor and faint alkaline reaction; it did not reduce permanganate of potash. Well No. 3, "Smith House," had a decided pyroligneous odor, a strong alkaline reaction, and reduced five drops of permanganate potash solution.

The solutions of permanganate potash were not volumetic; but the same solution was used for all the specimens of water, and consequently the tests were only comparative. Well No. 4, "McDonald House," has also a pyroligneous odor, but less decided than that of No. 3. Its reaction was strongly alkaline, it rendered six drops of the solution of permanganate potash. Dr. H. D. Schmidt examined it with the following results: Well No. 1., did not cantain anything of any significance. No. 2 contained some decomposing animal matter, such as is found in water taken from the ordinary wells. Nos. 3 and 4 contained nothing of importance, but some microscopic "dirt."

This was not the report I expected, but who can say that the morbific agent, capable of producing the disease, does not lurk in some of the organic material found in the examination, or perchance in some infinitessimal form that escapes even the highest magnifying power of the miscroscope. That the better classes, who have nothing in common with the operatives, who use different water and live in a different portion o

the town should be exempt from a fever, that commits such depredations upon their more unfortunate townsmen is a point hard to explain, unless we lay it to the water supply, or to some of the insanitary conditions already mentioned. If any suspicion of the water supply is unfounded, as the examination of Drs. Schmidt and Johnson would indicate, may the fever not be caused by the effluvia which arises from the privies, or from the filthy water that spreads over the street at each rain, to be evaporated by the next day's sun, and inhaled by the unsuspecting passer-by. But I am still inclined to think that the water supply has much to do with the fever, for the following reasons: The fever was most prevalent after a long drouth, followed by an abundance of rain, in which there was a general sinking of the water level, and the samples of water tested were not examples of the condition of the water last summer, for the water was examined after the fever had abated, and after the continuous winter rains, that would have a tendency to dilute the poison and purify the water.

In Dr. Wilson's new work on continued fever (page 121), I find the following axiom: "The poison is a specific poison and always derived from a previous case of enteric fever." This clause had a great deal to do with shaking my faith in the diagnosis of typhoid fever, as I could not trace it to any case from a distance. Its apparent origin seemed to be "de novo." If the latter portion of the clause be correct, it is possible that some one coming to the mills for employment with what may be called a "walking case" of typhoid fever, deposited here the germ necessary for the production of the fever, or perhaps some passenger on the train, suffering with typhoid fever evacuated his bowels while passing through the town. All the conditions here, climatic and otherwise, necessary to the production of the fever being rife, it found a fertile field for its propagation. Just before the fever broke out here, there was an excursion to Vicksburg, some of the excursionists were the first to contract the fever, but whether there was any fever, of a typhoid type, in Vicksburg at the time, I have been unable to ascertain. If typhoid fever is capable of originating "de novo" at any place, and there is good authority to support

this doctrine (Murchison and Sir Wm. Jenner), it would certainly find the proper field for its production in the choked pipes of the process already referred to. So firmly are we convinced that the cause of the disease lies here, that the superintendent of the mills has been induced to build underground sewers leading from each privy to pump water through each pipe, so that they cannot become plugged up, and to mix the dye liquor composed chiefly of solution of sulph. iron and acids with the fæcal matter as it is drained away by the sewer. If this does not have the desired effect and the fever becomes epidemic during the summer, we will insist on every well in town being closed and new ones dug in their stead. I will not close my remarks on the subject, without giving the profession the benefit of the treatment we found to be most successful in this fever. For let us theorize as much as we may about the etiology of the disease, to treat it successfully, and to save life, is our mission, and under no consideration should this important department of the science be neglected. We usually began the treatment by giving some mild cholagogue, viz: 10 grs. soda with five grains calomel, this to be followed by a saline purge.

This treatment of typhoid fever is not above criticism, I know, but during the first ten days of the attack constipation was the rule, and a mild cholegogue seemed to open the emunctories and promote the action of the other medicines, and I am able to say I never saw a hemorrhage or diarrhœa set up by it; (after the first week we never used purgatives). Our antipyretics were sulph. quiniæ, gelseminum, digitalis, alcohol, graduated cold bath, in addition to diaphoretic quinia had no power to control the disease, not even the periodical element of the fever, good and bad days were the rule regardless of the amount of quinine given; in fact quinine actually seemed hurtful in the second and third weeks of the fever, owing to its depressing action on the heart. It was thoroughly tried in both abortive and tonic doses, and was only found to act beneficially in tonic doses. The accelerated action of the heart sometimes reaching 150 per minute, was controlled by verat. veridi gelseminum or aconite. Nausea was combated by the usual remedies, headache relieved, and rest procured at night

by bromide and chloral, but we often found the graduated cold bath, given about bed-time, produced the double effect of rest during the night and of reducing the temperature, sometimes as much as two degrees. The cold bath, we have found the remedy, "par excellence" for the disease. Diarrhœa was hard to control by the usual remedies, and when hemorrhage from the bowels occurred it was nearly always fatal. Occasional symptoms we combated as they arose. Two drops each of carbolic acid and tr. iodine three times daily, seemed to act well in most cases. Considering the disadvantages under which we labored, we had reasonable success in the treatment of the fever. The class of patients were run down so much that milk punch, eggnog, beef-tea and good nourishment was kept up assiduously."

Medicated Gelatin Preparations and their Uses.

By M. R. RICHARD, M. D.

(Read before the Orleans Parish Medical Society.)

The value of local treatment of a great many diseased conditions of the mucous membranes is so generally acknowledged, that a paper on a special form or mode of application of remedies locally, will not, I hope, be out of place. My attention was first called to the use of gelatin preparations by Prof. Schrötter, of Vienna, at whose clinic I had ample opportunity to watch their effects. Profs. Carl Braun, Bamberger, Gruber, Politzer, Nagle, von Sigmund, Störk, Wiederhofer, Bandl, and others in Europe, and Drs. Barton, Parker, Langstreth, Crawcour and others, in this country, have used them with good results. In a great many cases the effect is surprising, and in nearly all at least satisfactory.

The preparations are so made that they can be easily handled, are elastic, do not melt in the hand, yet not too firm, and are perfectly soluble. They can be kept for a year or more in any climate.

Gelatin and glycerine used in making these preparations are peculiarly adapted to the purpose, as they are cleanly and

very soluble at the temperature of the body in the various secretions.

The medicament is in a state of perfect solution, *not suspension*, and therefore more easily and uniformly absorbed. They are made in such sizes and forms as to be easily adapted to the parts for which their are intended.

At present I know of but four sources of supply. Dr. F. A. Grohs, in Vienna, the original inventor; the "Anglo-American Suppository Company," New York, (suppositories only); B. Ward, Mobile, and Dr. Chas. L. Mitchell, Philadelphia.

Dr. Mitchell has very kindly sent me a small sample case to show the Association.

General Directions.—They should be slightly oiled or moistened, inserted to full length and left in position from twenty (20) minutes to one hour. As a rule I have a very small quantity of morphine incorporated with astringents thereby lessening pain.

The agents most used are the sulphate of zinc and copper, acetate of lead, iodoform, borax, nitrate of silver, carbolic and tannic acids, extracts of opium, belladonna, etc. I here mention them to save repetition. I have mentioned tannin, and knowing that I will be asked if preparations containing that substance are soluble, I answer, yes, perfectly.

Dr. Mitchell explains this as follows: Tannin forms an insoluble compound with gelatin, and this compound becomes again soluble in an *excess* of gelatin. Again, if tannin is with an alkali to faint alkiline reaction, it will not precipitate gelatin. I find my results have since been confirmed by some experiments of Dr. L. Lewin. (See New Remedies, Oct. 1880, p, 303, from Vircher's Archiv. LXXI, 78.)

Amygdalae Aurium. Profs. Gruber and Politzer (diseases of the ear, Vienna) use them continually in otorrhoea with good results. They are small, almond-shaped, and of different sizes.

The ear should be first well cleansed with luke warm injections of water, and the almond introduced with a fine pair of ear forceps down to the drum and the ear plugged with absorbent cotton. They dissolve very slowly and have a contin-

uous action on the part, and I am satisfied that they will be largely used in the treatment of ear diseases, for they are of far more service in certain cases than all other forms or modes of application.

Especially can I recommend them in exudative inflammation of the middle ear, with destruction of the drum, when the swollen and tense mucous membrane indicates such remedies. They are easily borne by the patient, and can be used stronger than solutions blown through the eustachian catheter, and all pain consequent on introduction of catheters avoided.

Nasal Bougies. Eight to twelve (8–12) c. m. long and four to six (4–6) m. m. in diameter; conic. A thread should be passed through the larger end and fastened to the ear. To introduce, grasp the smaller end, insert in nostril, and slowly rotate with a pushing motion until it has entirely disappeared; then plug the nostril with cotton and leave for 20 or 30 minutes.

The head should be bent backward, and as the gelatin dissolves and flows from the posterior nares into the throat, the patient should be instructed to expectorate. The amount of secretion excited is surprising, and very frequently large masses of inspissated matter are forced out of the mouth by a sudden fit of coughing. On one occasion I remember the patient, in great alarm, asked if that was not a part of his lungs.

I have seen the best results in treatment of chronic catarrh, hypertrophied mucous membranes, scrofulous ozoena, and ozoena following ulcerations or necrosis. Frequently we see, even after removal of sequestra and continued attention to cleanliness, the condition remains the same, the secretions and matter become hardened and form crusts which cannot be dissolved or dislodged by injections of water, but must be removed with forceps, a most painful procedure, I assure you, and one that I would not recommend. If gelatin bougies of carbolic acid be introduced and both nostrils closed, the crustsmeet, are coughed out, their further formation prevented, and the wound rapidly healed. They produce, although slight, a mechanical pressure on the mucous membrane, and can be introduced by the patient every day. Should both nostrils happen to be stopped up, one

bougie may be inserted in each, but should not be allowed to remain long. In those troublesome forms of chronic nasal catarrh from which many in winter periodically suffer, (singers, lecturers, actors and the like), we can make the nasal passages perfectly free by their continued and judicious use.

Urethal Bougies.— Those used in Europe are conic, five to six (5–6) cm. long, but I prefer them of uniform size and of different lengths, for treatment of different portions of the urethra. The long and short urethral bougies can be introduced by the patient very easily; he should oil, or lubricate them in some manner, (in cold weather it would be well to dip in warm water), grasp them short, and slowly introduce, rotating slightly, and partly withdrawing should any obstruction be met. The meatus should be closed by adhesive plaster. For the deep or prostatic portion very short ones are used and introduced through an instrument which I here show you. Dr. Mitchell, of Philadelphia, has modified this somewhat by graduating it.

Professor Winckel, Dresden, says (Handbuch der Frauenkrankheiten, 1877, p. 36): "For applying astringents to the urethral mucous membrane I would recommend most heartily gelatin bougies, as they are absorbed without injury to the organ, and are elastic, etc.; p. 41: "For after treatment of divided stricture of females I recommend the combination of iodide of potash and salicylic acid."

Undoubtedly the best results, in the simplest, most cleanly, certain and most comfortable way, are obtained; especially in chronic forms, thereby dispensing with injections, and the constant irritation caused by the introduction of the point of a syringe.

Rectal Suppositories.—Large and small sizes. Usual shape. The great advantage obtained is, that they can be handled and introduced with the greatest ease and safety, and it is just here that such forms of medication are most frequently required. In summer it is almost impossible to handle and introduce suppositories made of soap or cocoa-butter, as we very frequently find a tight sphincter and by the time we have dilated sufficiently the suppository has melted, causing great annoyance to say the least. Besides, the remedy is much

more quickly absorbed from gelatin than from soap or cocoa-butter. I have used them with satisfaction to myself, and great relief to my patients, in cases of malignant disease of the rectum, ischuria, etc.

Intra-Uterine Pencils.—For the direct application of medicines to the walls of the uterine cavity this is the best method, and is far less dangerous than medicated tents or intra-uterine injections. They are shaped like the short urethral bougies, and can be introduced through the same instrument, although one *more* curved would no doubt do better. Dr. Mitchell has devised a very nice "pencil carrier," although one can be improvised from a hard elastic catheter. I have used them for several years with good results, and would not be without them. I show you also the "*hollow medicated vaginal* suppository," and where we would wish to bring iodoform in contact with syphilitic ulcers of the external os or walls of the vagina, I cannot conceive a better way of doing so. They should be packed with absorbant-cotton and introduced through a speculum, after which a plug of cotton should be pushed, thereby distending the vaginal walls and preventing the escape of the melting suppository.

I might here mention that medicated solid globules are used by Professors Braun (Vienna) Schröder (Berlin) in vaginal and uterine blenorrhagia, painful ulcerations and cancer of the womb, and by Bandl (Vienna) for vaginismus, hysteria and allied conditions. Medicated sheets of gelatin are about 1-16 of an inch thick and 6 inches square, and are very useful when we wish to have the continued action of a remedy on old ulcers or surface wounds,—a piece the necessary size being cut off and strapped on.

The Relative Therapeutical Value of Phosphates, Hypophosphites and Lactophates.

By FERDINAND LASCAR, New Orleans, La.

Of all the elements discovered, none has been destined to play a more important role in animal life than phosphorous.

Its various chemical combinations with organic, as well as with inorganic substances are necessary factors, as shown by Pasteur, to even the simplest form of animal life. They enter into the vegetable and animal household at every step of their developments.

Phosphorous, as known, was discovered by the Alchemist Brandt, of Hamburg, 1669, but long before his time there entered into the ancient materia medica medicines containing both organic and inorganic phosphates. An instinct taught our ancient practitioners their value, and in books on medicine of that period are found an abundance of therapeutic agents, whose sole value depended on their containing phosphates in some form or other.

How far the greed after drugs containing phosphates went, will be best understood when I mention that "graccum album," the white excrements from dogs, was a favored remedy in all kinds of fevers, and so were the decoctions of snails and of hay employed in a variety of nervous affections, centuries before Brandt lived. But it has after all been left to our age to fully understand the value of phosphorous, and to practically employ the phosphates.

In olden days, when people lived more frugally than now, their diet was a far different one than at the present date. Our ancestors were not so particular in excluding the phosphates from their daily nourishment, and to have the phosphates the human system needs, supplied them by artificial means. Good old fashioned bread, baked from less white flour than the one we insist upon using for ours, supplied an amount of phosphates, and that in a soluble form just ready for assimilation.

The soluble phosphates retained in their darker bread, supplied in a more satisfactory way the brain and muscle food, which the profession now-a-day must study how to supply. As Hager says, the whiter and nicer the flower, the less brain making material it contains.

Let us look at the wheat, of three parts phosphates contained in the seed $\frac{2}{3}$ are in water soluble salts, and are contained in the grain in quantity of about 0.380. But as the most phosphates are found in the outer section of the wheat, and the

quantity contained decreases towards tho center, bran of wheat having, according to Crace Calvert, 1.264 soluble phosphates to 0.080 of nice white wheat-flour, it must be clear how comparatively little of the phosphates, contained in this cereal really enters our system, and how much we leave in the bran.

The practitioner is daily called upon to prescribe tonics, where a continual drain of phosphates from the patient's system has occured, and the patient never has thought of supplying these phosphates himself by a sensible diet.

The phosphates contained in most cereals are the potassic, sodic and magnesic, also phosphate iron and lime. Of these the three first named are soluble, while the last named are not soluble in water. Where the system has not received the needed quantity of these salts, which are all unconditionally needed to a healthful development of the human system, the question arises: how can the physician to the best advantage, and with as little disturbance to stomach and bowels, prescribe those phosphates to his patient, and in which form will they most readily be assimilated?

The medical profession of to-day have been besieged by a host of nostrum sellers; we hear of artificial brain food, of solution of tribasic phosphate of lime in cod liver oil, endorsed by Professors of Chemistry, in which no phosphate can be detected; we hear of vitalized preparations, and so forth, without end. While there unquestionably has, and is to-day, being put some very valuable preparations containing phosphates, and hypophosphates, on the market, the greater part of these so much praised patent medicines, or if you prefer to call them with the little better sounding name of proprietary medicines, are worthless, and often even unwholesome combinations.

While phosphate of soda and phosphate potassa are easily soluble, the lime and iron salts are not, and in most instances the last named two are the ones wanted. It is, therefore, important that when they are administered, to have them prescribed both in a palatable and easily digestable form.

It has been claimed, and fully proved that this is best done by either giving the tribasic phosphate of lime dissolved in diluted chlorhydric acid, or to give the more soluble hypophosphite salts.

In fact, the superiority of the hypophosphites in stimulating and regenerating the nervous system, and those tissues which contain lime is to-day universally acknowledged. Unfortunately our syrup hypophosphites compound of the Pharmacopœa is a very poor preparation; very often in phthisic and dyspeptic patients the stomach will not bear it at all. May it be allowed me to suggest a formula, which I have found always will be taken easily, both by adults and children, it being both efficacious and elegant.

Hyperphosphite iron (freshly prepared),	gr. xxx.
Hyperphosphor acid, - - -	℥i ss.
" calcis,	
" soda, each, - -	*ana* ℥ii,
Aq. destil, - - - -	℥iii,
Syrup vanilla, to - - -	℥x.

In anemia, tuberculosis, dyspepsia and nervous debility, an addition of fluid extract coca will make a good compound.

In hemorrhagia and in slowly uniting fractures, and in cases where the late Dr. W. Stone, of this city, recommended phosphate of lime, viz.: in scrofulous ulcerating phthisis, you will find the easy soluble lactophosphate of lime of service. The lactophosphate of lime deserves more attention than it has received of late. In diseases where phosphates are being continually voided through the stools, and through the kidneys, the system generally fails to assimilate the phosphates, and the digestion seems at fault. In these cases the lactophosphates, combined with light stimulating tonics, act beautifully.

The phosphate of lime is soluble in the gastric juice in the stomach, and so are the greatly more soluble hypophosphite salts. The absorption of the lime salts takes place in the stomach and duodeum; if any of the lime salt reaches the pancreatic juice and the bile, it is precipitated and to a great extent voided through the intestines. Therefore, it is desirable to render the lime phosphates soluble, and to administer

them in such a form that they can be absorbed. Here I would recommend acid solutions of lactophosphate, or hypophosphite lime, as both are without difficulty digested.

Dr. Burney Yeo read before the British Medical Association, 1876, his report of over 1000 cases where he used hypophosphite lime in phthisis. In advanced state and in cases attended with high fever, it has been of hardly any service. In younger persons and in cases of adults, where only apex of the lung were affected, and in the chronic cases of young people the salt was found highly valuable.

In concluding, let me remark that the researches of Dusart, and others having demonstrated that phosphate of lime, while very little soluble in the stomach, when dissolved in lactic acid and water is digested by the weakest stomach. I have also found that some extracts of plants contain the phosphates and hypophosphites of lime, soda and potassa in highly pallatable and truly vitalized form. Trilicum repens, our common dog-grass, or as in French, "Chiendent," is such a plant. It is a well known fact that this so common weed, during one summer is able to so thoroughly exhaust an acre of land of its phosphates, that the next summer no crop of cereals can be raised thereupon.

This plant contains more vegetable phosphate than any other known, and a good solid extract made therefrom, and combined with extract of malt, I have seen used on a great number of invalids with marked success.

I know of one patient suffering from diabetis and a complication of diseases who nearly lived upon this alone for three or four months, and recovered.

CORRESPONDENCE.

The Diagnosis of Yellow Fever—A Suggestion.

WOODVILLE, Miss., July 4, 1882.

S. M. BEMISS, M. D.:

Dear Sir: As there is a possibility of yellow fever prevailing to some extent in our country this year, please allow me

to make a few suggestions in regard to its diagnosis, as I have watched the disease closely through the epidemics of 1853, '55, '58, '67 and '78, in this town and vicinity.

It is generally well known how difficult it is to diagnose the disease in a mild form from the ordinary summer diseases of our climate—hence this note.

In the first place, we will suppose that we have a patient who, to the unpractised eye is only slightly indisposed, but to the one well versed in the phenomena of this peculiar disease is in great danger, not only as regards himself, but also the community in which he resides. He seems listless, complains of feeling a little badly, has some slight pain in the head, back and limbs, but does not think that they amount to much. If allowed to pursue his own inclination, he will lie down awhile and then set up, and probably walk about the house. Examine his tongue and you may not find any great departure from health; it may be slightly coated with a yellowish coat, as if sprinkled with a very small amount of Scotch snuff, and may be moist and rather large and probably flabby. The countenance is usually slightly flushed and the eyes a little red and somewhat watery; the pulse sometimes quick, but not always, and not usually very hard or full, but rather oppresed except in some of the severer cases, when at first it is rather full, hard and bounding, but soon becomes weak.

In fact, there is no characteristic pulse or tongue; at least, we have never detected any.

The bowels in mild cases are usually not much disturbed if no medicine has been taken or imprudence committed; the stomach also may not suffer much if not goaded with too much food or injudicious medication. In the first stage of the disease, the patient will usually lie upon his back with his arms by his side. or he may set up and probably walk about and have a sort of indifferent or listless expression of countenance.

We now come to the important points in the diagnosis of this peculiar disease, namely, the condition of the skin and the temperature of the body. If the patient is but slightly covered, such parts of the surface of his body as are exposed to the action of the atmosphere may feel slightly dryish

and a little cooler than natural—this is no doubt owing to the profound impression that the disease makes on the nervous system.

Apply the thermometer to the tongue or the axilla of a patient thus situated or exposed upon his bed, or he may be sitting or probably attending to some household duties (we could give several interesting cases since we began the use of the thermometer, where there was a temperature of 104° F. in the axilla before the patient went to bed), and you will find an unusual increase of temperature such as we have scarcely ever found in any other disease.

Now put this "suspicious" case to bed, cover him moderately, give him a cup of almost any warm tea and a hot mustard footbath, and you will soon have his cool arms and general surface in a decided glow, with flushed face, which will soon be followed, in nearly every case, by a profuse perspiration; but this sweat will not reduce the temperature to the normal standard in a few hours, as it does in the ordinary malarial fevers of the country. The slight covering with the mildest means, with proper care, will keep up this perspiration, yet will not reduce the temperature to the normal standard for several days. Now, the cup of warm tea and hot foot-bath with moderate covering, will not produce these symptoms in a healthy person, nor will a sick person with any other disease continue to sweat without a reduction of temperature, hence we have a peculiar disease in hand.

Before using the thermometer, we used, when we wished to interrogate a patient as to his temperature, place the hand under the cover, and have often found the sensation of great and disagreeable heat under the cover of the patient, when the arms or hands, which were uncovered, were quite pleasant to the touch, if not a little below the normal heat of the body; at least such has been my experience.

These remarks are intended to apply only to the mild or so-called "suspicious" cases of yellow fever, which really are as dangerous to the patient, if not properly treated, as the severer forms of the disease, and to the community the capacity to recognize the dangerous malady, which they have as a walking

pestilence at noon-day in their midst, is certainly beyond computation, as thousands of people would fly from the danger were they aware of it before the avenues of escape were closed.

It is my belief, from what I have seen of yellow fever, that the careful, cool and painstaking diagnostician, with the thermometer in hand, will rarely fail to recognise the disease when it exists, and he will also be able to point out the difference from dengue, remittent, bilious and swamp fever, which latter is most difficult to do, from a severe case of yellow fever, yet I believe it can nearly always be done.

Please examine the forgoing suggestions, and if you find anything in them worthy of remembering, do so and apply them. If not this summer, whenever you may have an opportunity.

Very truly and respectfully,

THOMAS J. HENDERSON, M. D.

CURRENT MEDICAL LITERATURE.

TRANSLATIONS.

THE INUTILITY OF TREATIMG YELLOW FEVER WITH THE SALICYLATE OF SODIUM OR CARBOLIC ACID, IF THE THERAPEUTIC ACTION OF THESE DRUGS IS TO BE BASED PURELY UPON THEIR ANTISEPTIC PROPERTIES.

[An extract from a paper upon the Nature of the Yellow Fever Poison by Dr. Carmoa y Valle, of Mexico. Cronica Medico.Quirurgica).

Translated by RUDOLPH MATAS, M. D., New Orleans.

[It is with regret that we are limited to the translation of this brief excerpt from the valuable and interesting paper by Dr. Valle, but the exhaustive manner in which the subject has been treated in original memoirs, as published serially in the Cronica, unfortunately renders it rather too lengthy for complete publication in this JOURNAL. A short *exposé*, however, of the principal conclusions arrived at by the author will doubtless prove of interest, at least to those who are following

watchfully the earnest and persevering, if not yet successful efforts of modern science to solve the mystery that enshrouds that *res incognita*, the yellow fever poison.]

Dr. Valle informs us that, in making microscopic examinations of yellow fever blood, serum, vomit and urine what has more especially attracted his attention has been the unfailing presence of a granulation so minute that an amplification of 1500 diameters would barely serve to reveal all its details. It is ovoid in shape, of a yellowish color, with ill-defined borders from which radiate numerous filaments, to all appearances and purposes, analogous to vibratile ciliæ; it is endowed with independent motion, has a great tendency to unite in pairs and measures one micromilimeter (1-1000 of a milimeter) in length.

This granulation has been extensively cultivated by the investigator and found, after a minute and elaborate study of its development, to be the zoospore of a fungus of the genus peronospora, and which Dr. Valle has individualized by naming the "*peronospora lutea*."

The histological examination of the anatomical specimens apparently revealed the presence, in various tissues (the subcutaneous areolor tissue, liver and kidneys only mentioned), of the fungoid invader. The hepatic vessels and the renal tubuli contorti seemed to be the favorite location of the parasite.

The experimental evidence adduced by Dr. Valle, to prove the fungoid origin of the yellow fever poison embraces four groups of experiments thus: "1st. Inoculations of (infected) urine and vomited matters, by depositing these substances in the subcutaneous areolar tissue; 2nd. Inoculation practiced by introducing, beneath the epidermis, the vegetable protoplasmic substance (zooglea) impregnated with the fungus, developed in the culture cup; 3rd. Inoculation made with the fungus developed in the culture cup after maceration in distilled water, and 4th, inoculations with the fungus deposited upon a wound with loss of substance.

The general results obtained through these experiments, as performed upon rabbits and dogs, may be summed up, as follows: (1) That the fungus was, in all instances, reproduced in the organism of animals, after inoculation; (2) That the fungus, when once introduced into the animal system seemed to take a permanent lodging in its humors and tissues, as evinced by the indefinitely protracted elimination of zoospores by the urine; (3) That this permanent residence of the germ of the disease, in the body, was not attended by any morbid manifestations, after recovery from the immediate effects of inoculation. As some curious instances of this permanent parasitic fixation are related, we reproduce them: Examination

of the urine of a convalescent, *three weeks* after an attack of yellow fever, revealed the presence of the fungoid elements in this excretion. The urine of a physician who had had yellow fever *thirteen years previously* disclosed the fact, upon examination, that the peronospora lutea was present in it; and more remarkable still, the urine of a Spaniard who, nineteen years before, had suffered, in Havana, with the "vomito," gave unmistakable evidences of the presence of the fungus; finally, the urine of the rabbits experimented upon also revealed the presence of zoospores, two and a half months after recovery from inoculation; (4) That the presence of these zoospores in the urine would prove a valuable differential sign of yellow fever; (5) In all instances in which (a) the *fungus combined with putrisant substances* was inoculated, the febrile movement was prolonged and intense; when (b) the *pure, unmixed fungus* was introduced into the cunomy through a superficial subpidermal wound, where it was *not* removed from the influence of the atmospheric air, the result was only an ephemeral fever, of very short duration and intensity; (c) when a fungus solution was inoculated by hypodermic injection into the *areolor tissue where it was out of reach of the atmosphere*, no event of consequence followed, no fever or apparent inconvenience, though the zoospores were, as usual, discharged in large quantities by the urine; finally, (d) when a wound with loss of substance was inoculated with the peronospora, a marked fever followed, with a notable systemic reproduction of the cryptogam. Dr. Valle also describes an interesting experiment upon himself: He injected subcutaneously into the region of the abdomen a solution of the peronospora lutea; an almost immediate, *but very slight* augmentation of temperature followed, which lasted a very short time, and which outside of sense of lassitude that accompanied it, was followed by nothing particularly disagreeable though the urine was full of, and continued to discharge zoospores.

As the most important corollary to his observations and conclusions, Dr. Valle writes: "As the inoculation of the (specific) fungus into the subcutaneous areolar tissue, when due care is taken to prevent the contact of air, is a procedure absolutely devoid of danger and inconvenience, we may make use of this method of inoculation in the way that vaccination is used to prevent small-pox. We may, therefore, safely inoculate the unacclimated with a solution of the peronosporo lutea in distilled water, and thereby prevent the occurrence of yellow fever infection."

[As the translator feels that in the preceding lines, he has not been able to epitomize even the chief deductions of Dr. Valle, or do him the justice of reproducing his own interpretation of certain difficulties presented by the observed facts,

which would seem to obscure and contradict the conclusions arrived at by the author, he will not permit himself to enter into any critical remarks about the paper, though he is regretfully constrained, after a most careful perusal of the original, to aver his total inability to concur with the distinguished observer, in the conclusion that the peronospera lutea is either the cause or consequence, the preventive of yellow fever.

The practical importance of the following critical observations, particularly, as they refer to Dr. Domingo Freyre's late and well known researches, have guided us in the selection of the excerpt.]—*The Translator.*

"I will permit myself a momentary digression, in order that I may acquaint the Academy with some of the results obtained from a series of experiments, in which I endeavored to study the influence of the principal antiseptic substances used, at present, in the treatment of yellow fever. Dr. Freyre, who, like myself, has observed the development of large cells from certain elementary granulations, believes that he has found, in the sodum salicylate, a powerful parasiticide, asserting that one drop alone of a solution of 40 centigrams (about 6 grains) of this salt in 70 grams (about 2 ounces) of water, is quite sufficient to destroy the vitality of what he designates by the name of criptococcus. I will pause here, to mention the fact that the cells which this observer believes to be criptococci are what I have demonstrated to be spores; and further, he describes in the *large cells* independent motion and a kind of sexual reproduction, by means of antheridiæ, that I have always failed to perceive, no matter how strenuously I have endeavored to do so. Whatever this difficulty may be due to, he assures us, however, that a single drop of the aforesaid solution was sufficient, when placed upon a quantity (undetermined by him) of vomited matter, to arrest the movements of the criptococci. Encouraged by this observation, he began the treatment of yellow fever by the subcutaneous injection of the sodum salicylate. He asserts that it this remedy is not infallible, its exhibition, at least, proved most satisfactory in the only epidemic in which he had occasion to try it.

Other practitioners contend that carbolic acid and its derivatives are infallible, or nearly so, in the treatment of black vomit.

Relying upon the urine of an inoculated rabbit that was swarming with well developed and active zoospores, I determined to observe the action that would be exercised upon their movements by the salycilate of soda and carbolic acid.

One drop of a one per cent. solution of the salicylate (nearly double the strength of that used by Dr. Freire) was applied to

a drop of the infected urine. It was observed that the zoospores continued moving as if nothing had happened; two hours after, their movements continued undisturbed, and it was not until evaporation had completely desiccated the slide that they ceased to exhibit their accustomed activity.

The same experiment was then repeated with a 12 per cent. solution of carbolic acid (15 centigrams of the acid to 30 grains of water).

The pariciticide effect was quite marked at once; some of the zoospores lost their motion, and many from the lower strata floated up higher, apparently lifeless. Yet, the great majority of these granulations continued to give full evidence of life until, as in the previous case, the evaporation of the water ended their movements.

From these two experiments we can deduct that, as a parsiticide carbolic acid is superior to the sodium salycilate; but that in neither of the two can we base our hopes of destroying in the living subject all the germs that may develop in yellow fever. We have seen how a mixture containing ½ per cent. salicylate of soda and ¼ per cent. of carbolic acid has not sufficed to destroy all the zoospores. I have said ½ per cent. and ¼ per cent. because once the solutions have been mixed, in the experiment, with an equal quantity of urine, the antiseptic fluids lose one-half their former concentration.

Now physiologists assert that a vigorous and well developed man is supplied with five kilograms* of blood. Let us suppose that we are dealing with a less plethoric individual, and fix upon four kilograms as the quantity of blood to be disinfected. It is evident that he will have to inject at one time, at least, twenty grams (over 300 grs.) of the salicylate in order that the whole mass of blood may be made to correspond to a one-half per cent. solution of the anti septic. Calculating in the same manner, we easily determine, also, that ten grams (over 150 grs.) of carbolic acid would have to be absorbed at one time, so that the desired percentage might be secured. And now I would ask: Could the human organism ever withstand such monstrous doses? Would it not happen, that in order that we might rid ourselves of the invading cells we would destroy our own, and at once decide, most undesirably, the issue of a malady which, *per se*, is so far from being always fatal? And please remember, that in using the disinfectant, in the proportions just mentioned, we would only destroy a a small minority of the infecting host; and that to medicate effectually, we would have to repeat, again and again, the noxious if not fatal doses. Therefore, nothing can be hoped for in the treatment of yellow fever with the salicylate of soda and carbolic acid, at least, if we are to base their effect upon their purely anti-blastic action.

* 1 kilogram—2 lbs. 8 oz.

INJECTIONS OF SOLUTIONS OF IRON AND SALTS INTO THE PERITONEAL CAVITY OF ANIMALS AND MAN.

(Read by Dr. John Dell'Orto before the New Orleans Medical and Surgical Association.)

Under this title the Journal of the Academy of Medicine of Turin published a very interesting *Memoire* read by Prof. Pio Foa at one of the meetings of the Association in the month of June, 1881.

The object of Prof. Foa's researches was to study the direct action of iron on the blood, and on the marrow of the bones.

The animals chosen for his experiments were dogs. The preparations used were weak solutions of ammonio-citrate of iron (citrato di ferro ammoniocale), varying in proportions between one half and 5 per cent., and these solutions were directly injected into the abdominal cavity, according to the method of Pomfick for the transfusion of blood.

The following are the results of his experiments:

1st. The dog bears perfectly well the injection of iron into the abdominal cavity. Immediately after the operation, the animal looks a little fatigued and sad, but the temperature remains normal, and next day it is lively again, and eats with good appetite.

2d. The absorption is very rapid; in fact, in a few hours a sensible rise is noticed in the *chromocitometre*, and in 24 hours it reaches its maximum degree; at the end of the second day it commences to fall.

If the animal is left alone, in a few days the citometric degree falls down to its former level.

If the operation is repeated, the citometric degree rises again, and keeps high and steady for 15 or 20 days, after which time it falls to its former level.

3d. At the autopsy of the animal, the color of the marrow of the bones appears very rusty, on account of the presence of iron, due to an increase in the functional activity of the marrow itself. In the dogs, which were operated twice, the function of the marrow of the bones is found extremely more active.

4. The appetite of the dogis voracious; the animal is more lively, than before, and the weight of the body increased. To explain these facts, Prof. Foa says, that the iron, as soon as it is introduced in the abdominal cavity is absorbed by the lymphatic vessels, and through them, brought into the stream of the blood, where it fixes itself in the globules in a determined proportion. The circulating globules first saturated with iron, precipitate in those organs where the stream of circulation is slower, such as the lymphatic glands, the spleen and the marrow of the bones, and this last one becomes rusty. The accumulation of many of these red corpuscles over charged with iron, gives more activity to the function of the marrow

itself, in consequence of which, many nucleated red globules are formed, and these are destined to substitute the old globules, which are destroyed or disappear.

The action of iron then, thus administered to healthy animals is to cause the destruction of many pre-existing red globules, and substitute them with new ones and more active, coming from the marrow of the bones.

After long series of experiments on dogs, which lasted from October, 1880, till May, 1881, Prof. Foa tried his method on a sick man.

It was a case of pellagra. The patient was extremely anæmic. He had taken large doses of iron by the mouth, but without any good result.

The citometric degree taken a few days before the operation showed 33.3 per cent. of hæmoglobine. The weight of the body was 42 kilograms.

Fifty grams of a solution containing two and a half per cent. of citrate of iron slightly charged with ammonia (that is one gram of the salt) were injected into the peritoneum.

No troubles during the operation; half an hour afterwards the patient felt nausea and some pains in different points of the abdomen. Meantime the respiration is more frequent and anxious.

The operation was performed at 11 A. M.; the blood was examined at 2 P. M.—three hours afterwards—the *chromocitometre* indicates an increase of 50 degrees. On the evening of the same day the temperature was 38.7 centigrade (101.6 F.), next morning it was 37.5 (99.5 F.)—in the evening it rose to 39 (102.2 F.); on the 3d day it fell to 37, that is normal.

Since that time a remarkable improvement was noticed in the general constitution of the patient: a wonderful physiological fact was observed in this case—the man, who, before the operation was apathic, sad and low-spirited, soon became of better humor; a voracious appetite then followed, and one month after the operation, the improvement was continuing, he had gained 22 per hundred of hæmoglobine and weighed seven kilograms more.

You see, how physiological experimentation shows the physician new ways of administering his medicaments. You know the experiments of Pomfick and some Italian physicians of the injections of difibrinated blood into the abdominal cavities of rabbits—and the rather encouraging results obtained by their use as a means of transfusion of blood in certain diseases.

Now Prof. Foa makes a step farther on; he has just tried the administration of a powerful medicament, iron, by this same method. You have heard the results, which are also encouraging.

Whatever the future of these investigations may be, they have already established two facts:

1st. That a forcing fluid, such as difibrinated blood, and a solution of iron may safely be introduced into the abdominal cavity of a healthy animal.

2d. That the peritoneum may hereafter be the best way to administer remedies in certain cases, especially in anæmic and insane patients.

A CASE OF A HIGH TEMPERATURE IN A HEALTHY YOUNG LADY.

Dr. D. Julio Ortiz Coffigny, of Matanzas, relates in the *Cronica Medico Quirurgica*, of Havana, (May, 1882,) a very curious phenomenon of a young lady, 20 years old, apparently enjoying in every respect good health, whose temperature is consequently several degrees above the normal.

This fact was first noticed by the young lady herself in January, 1881. One day while nursing her sick sister, she had the idea to take her own temperature, and found it as high as 38 degrees centigrade (100.I° F.) She notified it to Dr. Llorach, who was attending her sister, and who observed the same temperature.

Lately Dr. Ortiz Coffigny took a great interest in this case, and the following is the result of his observations during eight consecutive days:

	Temperature taken under the axilla.	Temperature taken in the mouth	Pulse.	Respiration.
At 8 o'clock A. M.	38.7 Cent. (101.6F.)	39. (102.2 F.)	100	24
At 1 o'clock P. M.	39.5 Cent. (103.1F.)	39.8. (103.6 F.)	120	28
At 5 o'clock P. M.	39. Cent (102.2F.)	39.2 (102.5 F.)	100	24
At 9 o'clock P. M.	39. Cent. (102.2 F.)	39.2 (102.5 F.)	100	24

As these ciphers have been found constant during the eight days, there is every reason to believe that this febrile temperature is a normal physiological fact in that young lady.

This observation, gentlemen, is of the greatest importance; it reminds me of another observation of Pasteur, and suggests some ideas, on which I want to call your attention.

While the great scientist was making his experiments on carbuncle, and preparing the cultures for its inoculation, one of his most bitter opponents, whose name I do not remember now, told him, that he would never be able to inoculate carbuncle in chickens. In fact Pasteur tried the inoculation in these animals, and no carbuncle was produced. Puzzled at such a negative result, he wanted to know the cause; he had the idea of taking their temperature, and found that it was several degrees higher than the other animals. He soon argued, that this must have been the cause. By some ingenious means he reduced the temperature of the chicken to the level of the other animals, on which he was experimenting; he inoculated then the virus, and the carbuncle appeared.

Here is a fact of a high temperature causing in the chicken a peculiar idiosincrasy, that gives it immunity from carbuncle—there is another poison (atropiæ if I am not mistaken) that does not affect the chicken, probably due to the same cause.

Now let us apply this principle to the human race, and let me ask you, what is idiosincrasy? what is the cause of this idiosincrasy, or predisposition, of which we are talking every day in our practice?

Why a contagious disease, f. i. scarlet fever, attacks the different members of the same family in different ways?—While one is stricken by the poison with such a violence to die sometimes in twenty-four hours, another has a slight fever with a little rash curable in a few days, and another gets nothing?

The cause of all this may perhaps be found in the peculiar temperatures of each individual.

Ninety-eight and a half degrees F. or thirty-seven centigrade is acknowledeed to be the normal temperature of man. Are we sure that this cipher always represents the normal temperature of every person? The fact just related of the young lady of Cuba proves, that there are some exceptions; and these exceptions may be more frequent than we suppose.

My own temperature is fully nine-tenths of a degree above the normal: it was ninety-nine and two-tenths (in the mouth) yesterday before my dinner. During the epidemic of 1878, I took several times my temperature, and always was above one hundred.

These exceptions ought to be known by the physician. In this age of ours, of progress and scientific investigation, it should be advisable that every physician have the record of the normal temperature of all his clients, in order to compare them, when they are sick; by this way we may perhaps be able to resolve the problem of idiosincrasies. We are discovering every day new organisms as the causes of diseases; but after all the parasite, the germ, the bacterium, the bacilli, does not constitute the disease, it only becomes disease when it finds in the soil, in the blood, the proper elements for its developments, and for this work temperature must play the most important part.

SYPHILITIC POLYURIA.

There is, according to Professor Semmola, of Naples, a form of cerebral syphilis which may be the cause of poliuria.

The Revista of Ciencias Medicas de Barcelona speaks of three cases already reported by the doctor in favor of his opinion. In one of those cases (the most characteristic of all), the patient used to void 43 pints of urine in the 24 hours, with a specific gravity varying between 1001 and 1005. He had seen several physicians, but feeling no relief from their treat-

ment, he finally consulted Prof. Semmola, who found out that the man was affected with a chronic syphilis, to which he attributed the cause of his disease; very probably some syphilitic lymph or deposit was locally effused into the walls of the 4th ventricle of the brain, and so have pathologically reproduced the celebrated physiological experiment of Claude Bernard, that is to produce poliuria and zugar in the urine of dogs, by symply puncturing with a needle the floor of the 4th ventricle. Based upon this diagnosis, the patient was submitted to a general antisyphilitic treatment, which consisted in hypodermic injections of alluminate of mercury, and the long-continued use of iodide of potassium. In two months he was perfectly cured.

CAFEINE IN THE TREATMENT OF STRANGULATED HERNIA.

In the Revista de Ciencias Medicas, of Barcelona (March 10th, 1882), Dr. Salvador Badia writes a valuable article on this subject.

In 1880, the doctor had the misfortune to be present at an operation of kelotomy, which terminated fatally. Struck by such a result, he has since devoted his time to study the means to relax in the quickest possible way the spasm of the inguinal ring, which is one of the most common and principal causes of strangulation, so as to avoid the necessity of an operation.

Among the remedies which he tried in his experiments, he found that caffeine answered to the purpose very well, on account of its peristaltic action on the bowels. In the nine cases in which he used it, the result was most satisfactory.

The dose is of 3 centigrams (half a grain) every half hour, until the spasm disappears; and this generally happens at the end of two hours, when the reduction can be easily performed.

Dr. Badia highly recommends this remedy to the profession, and firmly believes in its usefulness, whenever administered in time, that is, before any plastic deposits or adhesions have taken place in the tissues of the hernia.

FORMULARY.

POWDER FOR HEMICRANIA AND NERVOUS HEADACHE.—*Journal de Mëdecin.*

℞ Quiniæ sulphatis, - - - - ℈i;
Cafeinæ, } - - - - gr. xii;
Acidi Tartarici, } aa
Morphiæ sulphatis, - - - gr. ii;
Sach. alb. pulv. - - - - ʒii;
℥. Et Ft Cht No. V—
1 powder morning and evening, in a little water or coffee.

EMULSIO OLEI RICINI.

The following preparation, administered in one ounce doses, is an efficacious and pleasant purgative:

℞ Olei ricini, - - - - ℥i;
Glycerinae, - - - - - ℥ii;
Syrupi Simplicis, - - - ℥iii;
Olei Cinnamomomi, - - gtt. v;
Olei Menth. pip. - - - gtt. ii;
Aquæ Menth. pip. - - - ℥iv; ℳ.

ANTI-NEURALGIC MIXTURE.

℞ Cupri Sulphatis (ammoniati), - grs. 2–3
Syrupi Flor. Aurant. - - - - ℥i;
Aquæ still. - - - - - ℥iii; ℳ.

All to be taken, in tablespoonful doses, at meal times particularly,—in 24 hours. This should be kept up ror fifteen days, if a complete and lasting cure of the neuralgia is desired. In old and rebellious neuralgias, it is especially recommendable.

GUENEAU DE MUSSEY'S FORMULA FOR WHOOPING COUGH.

℞ Syr. Flor. Aurant.
Syr. Codeiæ, - - - - aa ℥ii;
Syr. Belladonnæ, - - - ℥i;
Syr. Ætheris, - - - - ℥ss;
Potass. Bromidi, - - - - ℥i;
Moschi, - - - - grs. vii. ℳ.

Sig.: half a teaspoonful, morning and evening, for a child 1 year old. This exercises a very sedative and desirable influence upon the cough.

ACUTE BRONCHITIS.—Bamberger.

℞ Infus. Arnicæ Montan. - - ℥iii (℥i—℥iii).
After cooling, add:
Spts. Ammoniæ, Anisat (Ph. Br.) - ℥i;
Syr. Aurant. Corp. - - q. s. ad ℥iv; ℳ.

Sig.: 1 tablespoontul every hour.

SULPHUROUS ACID IN TYPHOID FEVER.

Dr. Burney Yeo, in the June number of *The Practitioner*, gives an account of certain experiments made with sulphurous acid in typhoid fever. Three cases are cited, but the first was of too mild a type to prove any good effect from the drug, and in the second the remedy was discontinued because of alarming hemorrhage from the bowels before any effect was noted.

In the third case the remedy was first used on the fourth day of the fever, the dose being one-half dram of the acid every four hours. During the first five days of treatment the temperature ranged between 102° and 104° F. On the ninth day the evening temperature was 103.6°, but on the tenth day there was a notable fall. From this on to the twelfth day it did not rise above 102°. On the thirteenth day the temperature fell to 101.2°, and for the next six days it reached on one occasion only as high a point as 101°. During this time the patient seemed to be doing well, except that he was always nervous and depressed. There had been no abdominal tenderness or distension, and but five actions from the bowels during nine days. On the nineteenth day, however, he complained of abdominal pain. The temperature began to rise, reaching 103.8° on the twenty-second day, and upon the twenty-eighth day it was 104.2°. Diarrhœa and hemorrhage became persistent, and he died with symptoms of perforation on the twenty-ninth day. The post-mortem examination revealed abdominal lesions of great gravity.

Dr. Yeo concludes that while the remedy exerts no influence over the intestinal lesion, it certainly seems to have modified in a remarkable manner the temperature-curve of the fever, just as quinine in large doses is often found to do. It is worthy of note that in this case, notwithstanding the extent and gravity of the intestinal ulceration, the temperature was never very high, only twice reaching 104°.—*Cincinnati Medical News.*

TO BE COPIED INTO THE PRACTITIONER'S NOTE BOOK.

Inhalation of five to ten drops of amyl nitrite will break up a chill of malarial fever; so will hypodermic injection of one-sixth of a grain of muriate of pilocarpine. It is said that twenty drops of oil of turpentine will control the diarrhœa of typhoid fever. Two to five drops of wine of ipecac, three times a day, will, in the majority of cases, check the vomiting of pregnancy.—*Independent Practitioner.*

VIRCHOW ON SOUPS AND BROTHS.

The distinguished German professor and politician has been accused of being the chief opponent of soup. He says that this is not true, for he had merely said that meat broths are neither nutritious nor "substantial." That if all the meat which one uses should be boiled and soup made of it, the meat would become for the greater part indigestible, and the soup would not be a substitute for it. Ordinary meat broth or bouillon in its pure form can only be recognized as a condiment. By the addition of eggs, flour, fat and other things, it may acquire a certain nourishing and heating value. It is, primarily, only a very dilute aqueous solution of substances that are in part of low value as heat producers, such as gelatine, and in

part of the stimulating aromatic parts of the meat. Taken warm, it is of nearly the same value as coffee or tea, but is inferior to wine, schnapps, or beer; it only stimulates the nerves. It has one advantage over every other condiment, namely, it contains no poisonous substance, it is incomparably milder, hence much better adapted to feeble persons; and finally it can be conveniently combined with substances that are actually nutritious, and imparts to them an agreeable and "substantial" taste.—*Scientific American*, April 8, 1882. *New England Medical Monthly.*

GOUT AND AN AMIMAL DIET.

The theory, which is widely accepted, that high living, and especially rich animal food is, with insufficient exercise, the great factor in causing gout, has to meet a good many objections. It has lately been found that gout appears in some of the lower animals when fed upon a purely vegetarian diet. This is notably the case with parrots, according to observations of M. Meguin. In a number of these animals he has found well developed gouty joints.—*Independent Practitioner*, March.

SOME POINTS IN MALARIAL FEVER.

One of the most unfortunate terms ever introduced into medical literature is *typho-malarial;* unfortunate, because incorrect. Though it has been discarded by Dr. Woodward, the one who introduced it, the usage of the term is rife in malarious regions. Only a few days ago, I remarked to an intelligent practitioner that the malarial fevers of this year are of an unusually intense type. "Yes," he replied, "and there is no no doubt they have associated with them a 'typhoid element.'" But, I answered, "you do not think the specific typhoid and malarial poisons are conjointly at work in the same individual"? He said that he did, and referred me to Dr. Woodward's work, as sustaining such a view. That man knew that Dr. Woodward had formerly enunciated such a belief, but he did not know that he had repudiated it absolutely, in a paper read before the International Medical Congress, at Philadelphia. Typho-malarial fever has no existence. Typhoid fever and malarial fever never exist contemporaneously in the same subject. Too often, in malarious regions, it is found *convenient* to apply the term typho-malarial to grave cases of remittent fever; or a simple malarial fever is said to "turn typhoid" when it assumes a dangerous aspect. It is a disgrace to the medical profession to have such opinions scattered among the people, and when one physician expresses such notions to another, it is difficult to tell whether his knavery or ignorance preponderate.

It should be known that few fevers are more malignant than the ordinary remittent, when improperly treated. It should

also be known and remembered, that just as we have pernicious intermittents, so we have pernicious remittents, and that for such a fever to assume grave features or to end fatally it is not necessary to have it *become* either typhoid or typho-malarial. To have typhoid fever *modified* by a malarial element is quite another thing, but it does not become a separate disease. In the same sense do we see scarlet fever or whooping cough modified by a malarial element.

* * * * * *

Diagnosis.—As we believe the mistake most frequently made in the detection of malarial fever, to be a confounding of it with typhoid fever, we shall simply discuss briefly the prominent points of difference. No matter what degree of severity may be assumed by malarial fever, we never have the tympanitic abdomen, nor any eruption, as we do in typhoid fever. We may have diarrhœa, though usually the opposite obtains. I met with one case during the past autumn, in which diarrhœa was a very troublesome feature; the patient would have from five to six loose actions daily. Again, the thoracic symptoms, so common in typhoid, are absent.

In the temperature record, too, we have valuable data; it is only necessary to remember the peculiar uniform record of typhoid. In short, the difference is so great that careful practioners can never err. * * * —*J. W. Hickman, Delta, Pa., in Phil. Med. and Sur. Reporter.*

DETECTION OF GALL-STONES BY THE EXPLORING NEEDLE.

By James T. Whittaker, M. D., Cincinnati, O.
Professor of the Theory and Practice of Medicine, Medical College of Ohio.

The diagnosis of cholelithiasis is sometimes very simple and very easy. The characteristic colic, the occasional jaundice, the constipation, the duodenal catarrh, occurring in a female after the meridian of life, leave scarcely a doubt as to the nature of the disease. The discovery of gall-stones in the discharges makes the diagnosis sure. And in the majority of cases gall-stones may be detected in the discharges if the precaution be taken, perseveringly, to pass the fæces through a sieve. Murchison says that Wolf, "who took the pains to examine the fæces sometimes for months after an attack of biliary colic, never failed to find gall-stones in one of forty-five cases of biliary colic occurring in his practice during a period of forty-three years."

Nevertheless, many cases of cholelithiasis are exceedingly obscure. No one sign of the condition is pathognomonic; no one sign is even constantly present. Hepatic colic is sometimes absent, and is often simulated by hepatic neuralgia; icterus, *per se*, possesses no diagnostic importance, von Schneppel remarks, as it may be present in many other conditions and be absent in hepatic colic; duodenal catarrh occurs

oftener without than with gall-stones; the male sex is affected in one-third of all the cases, and no age is entirely exempt. Moreover, the passage of the stones affords no absolute indication of the condition left. Ewald expresses the conviction of every practitioner of wide experience, when he says: "*In vielen Fällen ist es unmoglich eine Differential diagnose zu stellen.*" (In many cases it is impossible to make a differential diagnosis). We might add that an absolute diagnosis can be made in no case. In every case there is some room for doubt. For all the indications may be present, and cancer, echinococcus, abscess of the liver, or any pressure from without be entirely excluded, and yet the gall-ducts may be blocked only by inflammatory thickening of their walls, or by inspissated bile.

Any means, therefore, which will safely and surely detect the presence of a gall-stone will be received with satisfaction, and that such a means exists is proven by the history of the following case.

H. B——, aged seventy-six, has been deeply jaundiced for six months. During this time he has lost fifty pounds in weight. His stools are like putty; his urine has the color of tar. His general strength is so much reduced that he is not able to sit up longer than half an hour. He is tortured with tinnitus aurium. He has no appetite, and is profoundly dejected.

The liver is enlarged; its free border projects two and one-half inches below the margin of the ribs. The gall-bladder constitutes a large tumor, of the size of the fist, smooth, globular, and movable. There is some apparently slight ascites. It was apparent that the condition depended upon total occlusion of the common duct.

The diagnosis rested between gall-stone and cancer. In favor of cancer was the enlargement of the liver and the ascites. In favor of the gall-stone was the condition of the gall-bladder. Against both conditions was the total absence of pain. He was a very intelligent man, and he stoutly maintained that he had never had an attack of pain. His daughter stated that he had suffered from pain five years ago, a fact which he could not recollected, but had never had pain since. Against cancer was the absence of any primary deposit.

In order to definitely determine the diagnosis, I concluded to explore the gall-bladder. Having fixed it by compression from below upward against the liver, I introduced the needle of the hypodermic syringe and withdrew it full of thin clear bile. On the next day, April 20th, I fixed the gall-bladder as before, and gradually and slowly pushed through the abdominal parietes, just below the gall-bladder, a long fine needle, in fact, the longest and finest needle of the Dieulafoy aspirator set. After penetration of the peritoneum, there was no resistence whatever—it was as if in empty space—to the further progress of the needle, which I advanced slowly and in a straight line in

the direction, as nearly as could be determined, of the common choledochus duct. At the depth of four and three-fourths inches I struck a stone. The sensation was perfectly clear and distinct. It was a fine delicate crepitus, unmistakable in its character. After penetration of the skin, there was no sensation whatever on the part of the patient. The needle was then withdrawn, and the patient experienced no more discomfort than after a hypodermic injection. Having had all the dangers of choletithectomy freely set before him, in the presence of his family, and fully recognizing that he was slowly dying by inanition, feeling "life not worth living," as he said, he elected to take the risks of the operation, which I asked one of my surgical colleagues, Dr. Joseph Rausohoff, to perform. Dr. Rausohoff expressed the very natural desire to feel the stone himself before undertaking such a dangerous operation. Accordingly, on April 29th, we proceeded to repeat the exploration of the week before. I had the good fortune to strike the stone at once, as upon the previous occasion. Thereupon I put the end of the needle in his hands, but he failed to feel the crepitus, nor could I feel it when I took it from him. It had evidently glided off. Thereupon I explored in various directions, very gently, of course, partially withdrawing it and re-inserting it twice, when I again came upon the stone. This time Dr. Rausohoff felt it, too, perfectly, distinctly, and withdrew the needle, convinced of the presence of the stone.

May 3d, Dr. Rausohoff, in the presence, and with the assistance of Dr. Dunham, a former physician of the patient; Dr. Cilley, Demonstrator of Anatomy; Dr. Kebler, Lecturer on Histology; Dr. French, my assistant; Mr. R. Davis, my student, a son-in-law of the patient, and myself, removed two large stones, weighing respectively 138 and 162 grains, one of which was firmly wedged into the cystic duct, and three small stones, weighing 9, 5 and 4 grains.

Of the method of operating and the cause of the fatal result, which occurred on the day following the operation, I have nothing to say. These details will probably be reported in full by the operating surgeon. I desire merely to call attention to the ease, impunity, and I might almost say, unconsciousness on the part of the patient, with which these gall-stones were detected *in situ* by means of a long exploring needle.

Petit, 1733, first proposed the operation of cholecystotomy, and (according to Hartshorne) Le Dran, Morgagni, Good, Handfield Jones, Maunder, Hughlings, Jackson and Thudicum "have referred to the operation as justifiable and practicable." Dr. Bartholow, my predecessor in the chair of practice, first actually performed the operation of aspirating the gall-bladder, and sounding the cystic duct, in a case echinococcus of the liver in 1876, and a number of cases have been since reported by Brown, Sims, Keen, Bryant and Lawson, Tait (Hartshorne's comment n Goodeve's article, "Reynolds' System"); but, so far as I have

been able to discover, it has hitherto occurred to no one to detect a stone in the gall-ducts by this simplest, safest, and surest of all the procedures tried, viz., exploration with a needle. —*N. Y. Med. Rec.*, May 27.

THE DRUG STORE OF THE FUTURE.

Let us look ahead ten or twelve years and see ourselves as druggists under the unchecked working of the trade-mark system. One of us, who has been out of the business during these ten or twelve years, calls upon his old friend the druggist of that time and asks for the best physician in the neighborhood. The druggist answers: "Oh, there is no difference in any of them; they are all alike. You see things are different now from what they were when you were in the business—excuse me, when you were a member of the profession. We have dropped that term now and call it a business. You see the physicians have gradually worked into the plan of asking the patient what is the matter with him, and then by reference to a little pocket remedy book, well indexed, he finds the article that suits his case and prescribes it; and they all do the same. So I say they are all alike. You see the manufacturers have meetings every three months and add to and correct these lists. They have pooled the profits, and it don't make much difference to the manufacturers which articles are sold, as they all get their proportion of the profits. I have one of these books and will show you how it reads. The title is, "The Consolidated Trade-Mark Manufacturers' Manual, for Physicians only." If a man says he is bilious, the physician turns over to B, and follows down through Ba, Be, to Bi,—there, you have it: 'Biliousness; for all cases of biliousness use Hyfalutine, Pseudocetine, etc., etc. For bad cases use Duodenine, etc.' You see the physician has a long list to choose from, and he selects the name that strikes his fancy and orders it for him. The druggist wraps up the article and charges him the price he can get, and the patient takes the medicine; the next time he feels the same way he calls for the same medicine, and we sell it. Oh, yes, it affects the income of the physician and our business somewhat, but what can we do? Away back in 1881–2 we made an effort to stop the encroachments of the trade-mark preparations; but, owing to a lack of interest in the matter on the part of the physicians, who kept prescribing them, and the druggists, who continued to sell them, we failed to do anything; and if we could do no good then, what chance have we now? Our physicians have forgotten the old way of diagnosing a case for themselves, and the druggist of to-day knows nothing of pharmacy. Why, we have not had a drug mill in this store for years. My clerks are better posted in the kinds of leather in the shoes we sell, in the quality of calico, in the quality of crockery ware, than

they are in the drugs; for, to tell the truth, we sell little else in the drug line than these ready prepared medicines. There are one or two old fossils here who prescribe outside of these, and they give us an endless amount of trouble. We have to make up a pint of sarsaparilla syrup at a time, and other preparations like that, just for their benefit. We tell them that the preparation known as Elucidine is the same thing. He says, 'I won't have it. I once subscribed to the code of ethics which barred those preparations, and I will not prescribe them on principle.' We laughingly tell him there is no principle in medicine, and that argument shuts him up. Happily, these cases are rare, and we will not be bothered with them long. We don't make these preparations for the reason that we dare not. You see they are the personal property of the manufacturers, and prosecution follows swiftly on all attempts to encroach upon their ground. You remember, in 1882, Chris. Rodenbach, of Buffalo, was arrested for making Syrup of Dover's Powder; he compromised and promised not to make any more. Several other prosecutions by other manufacturers followed, and then all was serene. No one now attempts to make these preparations.

"What has become of the American Pharmaceutical Association? Well, it's hard to say. They held a meeting in 1881 and never met again. Some one offered a resolution to the effect that the trade-mark system was endangering the science of pharmacy, etc.; the trade-mark manufacturers were there in full force and opposed it. Prof. Maisch, Albert Ebert, and a few others, made a hard fight, but the lay members were indifferent, and the discussion raged so hard that the association disbanded and the resolution did not pass. The American Medical Association are in the same condition. They have not been heard of for years. You remember that one of their members offered a resolution at their meeting in Richmond, in 1881; this was laid over to be acted upon at their next meeting, in St. Paul, Minn.; this resolution was finally brought out, and the discussion that followed was long and warm; I might say very warm. There were some who vigorously upheld the resolution; one in particular was that old fossil whom I spoke of as giving me so much bother. The opposers were so numerous and loud-spoken as to override the views of the weaker ones, and the war went on. Finally, the professors of many of the colleges, who had recommended these copy-righted or trade-marked preparations and been liberally advertised thereby, joined the opposition. This so incensed the others that they withdrew, and the American Medical Association vanished like a cloud. A Pharmacopœia? No, we have none; we don't need one; why, the edition of 1880 has not been published to this day. The only text-book we need now is the Manual and Price List of the Consolidated Trade Mark Manufacturers."—*The Pharmacist,* May, 1882.—*Ther. Gaz.*, June.

THE NOBLE FOREHEAD.

A paper on the "Noble Forehead" was read before the Casual Club, London, by Dr. Crochley Clapham. The author, after dwelling upon the generally prevalent belief in the intellectual character of the noble forehead, proceeded to examine the grounds upon which this belief was founded. He showed by a series of photographs of the same individual taken under conditions (1) in which the hair was growing low down on the forehead, and (2) in which the hair was removed from the forehead, that in one case the appearance was noble, and in the other ordinary. He further pointed out that the standpoint from which a forehead is viewed is of great moment in forming a judgment as to its capaciousness, and recommended Lavater's method of viewing from above. Supposing an unusually large forehead present, he denied that it necessarily represented correspondingly large frontal lobes in the subjacent brain, and instanced the occurrence of large frontal sinuses as illustrating this. Further he contended that there was no proof that the frontal lobes were the seat of intelligence, and gave the following reasons for rather crediting the occipital lobes with that function: (1.) The occipital lobes, occur only in the primates, being absent even in the lowest of the monkeys, whereas the frontal lobes are present in all the mammalia. (2.) The occipital lobes, where present, are the latest developed, whereas convolutions first make their appearance in the brain of the human embryo in the frontal lobes. (3.) The occipital lobes are not occupied, as are the frontal lobes, by extensive motor areas; indeed, they have no motor cells whatever in their cortical substance. (4.) The occipital lobes are small and ill-developed in idiots (a straight back to the head being a common feature of idiocy), whilst the frontal lobes are unusually large, relatively speaking. (5.) Wasting of the occipital lobes is always accompanied by dementia; not so wasting of the frontal lobes. In support of his fourth proposition, the author quoted from some tables drawn from careful weighings, of over 400 insane brains. Idiots' brains had frontal lobes weighing 37.16 per cent. of the whole encephalon, whilst all the male cases only showed a percentage of 36.05, and all cases, male and female, a percentage of only 35.99. In fact, with the single exception of cases of simple mania, where the percentage of the frontals to the encephalon was 37.31, idiocy ranked highest in the scale. As regards measurements of the head: In a number of sane and insane individuals of the same station in life, whose heads were measured, the frontal portion of the circumference was 52.5 per cent. of the whole circumference in the insane, whereas it was only 52.1 per cent. in the sane. For the benevolent character of the noble forehead, the author thought that more might be said, and he gave a table in which the head measure-

ments of 84 respectable members of society were compared with those of 500 criminals. The comparison showed that the respectable member of society had a frontal percentage of 52.1, whilst the criminals had a frontal percentage of 48.6 only. The author, after pointing out how careful we must be in drawing conclusions from such comparisons, went on to illustrate by diagrams the great want of correspondence which existed between the shape of the head and the shape of the brain, and finished up his paper with an attack on the so called science of Phrenology, and the modes of procedure adopted by its professors. An interesting debate followed, in which Mr. Kingsford, Dr. Selfe Bennett, Mr. Boyes, Drs. Hack, Tuke, Huggard, Savage, Hughes Bennett, etc., took part.—*Jour. Mental Sio. Gaillard's Med. Jour.*, May.

AN EARLY SYMPTOM OF PREGNANCY.

It is in no spirit of boasting that I strongly insist upon the importance of a symptom as indicative of the beginning of pregnancy. I refer to the almost complete disappearance of the phosphates from the urine. Were we to investigate the cause of their being thus retained we should doubtless find that they are in no small degree required for the development of the fetus in the earlier part of pregnancy. They condense almost entirely into the formation of the bones, increasing the density of their surfaces by the formation of osteophytes, for a long time erroneously considered the result of an error in nutrition. In the late months, the fetus developes rapidly, these reserves are attached, the bones tend to increase their primitive weight, the osteophytes gradually diminish and finally disappear. In the earlier months of nursing, they are required to maintain in proper proportion the phosphates of the milk.

This also happens when the woman is strong and well nourished. In a contrary manner, however, and these are the cases which always occur in the cities and great industrial centres, the mother, far from laying up such reserves, appropriates from her own substance, material for the nurishment of the fetus. She wasts away and gives life to a miserable being, which her impoverished milk is wholly unfit to nourish. If now the organism be supplied with the phosphates which it thus loses, we shall see the pregnant woman recover her strength and give life to a new being under normal conditions of health and resistance. This is no longer a theory, but it is also practical, for I have had the fortune to observe good results, nine times in ten, following the administration of the phosphate of lime.

Among other facts in proof of this, I will cite the example of a family of four children, the first two of whom, of ordinary strength, were of the lympatic type, deficient in both men-

tal and physical vigor, with palor and inactivity of the skin, etc., while the other two, born a long time after these, and in a time when the mother was in an enfeebled state, from the effects of a nervous disorder, were nevertheless vigorous, noisy children, with beautiful, healthy complexions. I attribute this difference of condition to the administration, during the last two pregnancies, of the phosphate of lime in the form which I consider most physiological, namely, in the form of a syrup or the wine of Dusart. The observation is rendered the more conclusive in that the results of the administration of the phosphate of lime was so happy as compared with the condition existing during the former pregnancies.

I have further observed, in many cases, a rapid disappearance of the vomiting in women to whom I have prescribed the syrup or wine of Dusart; and I have nearly always found the eruption of the teeth to occur more readily and to progress without difficulty in their children. Thus, in the family of a *confrere*, I have seen the first tooth appear in the first two children, at the eleventh month. During the third pregnancy the mother took the phosphate of lime and the child without any disturbance of its health, cut the first two teeth at a few days after the fourth month.

Let me repeat: I have been able to demonstrate, entirely to the recommendation of phosphate of lime, the comparison between infants that have followed pregnancies deprived of the only aid to nature, and those that have been blessed by the administration of the element which presides over the formation of muscle as well as of the osseous system.—Dr. Delattre in *Gazette des Hospitaux.—Cincinnati Lancet and Clinic.*

WHO INTRODUCED NITRO-GLYCERINE?

The following clipping from the April number of the Philadelphia Medical News is of interest in the history of this new remedial agent. It is a point of importance that due credit may be given for what appears to be a valuable discovery, and we gladly republish the following claim made by Dr. Allan M'Lane Hamilton, of New York City:

In an article in the current number of the News it is stated that nitro-glycerine is a new remedy. I desire to call attention to the fact that the drug was used many years ago, and articles detailing its physiological effects were written as far back as 1855.

I wish, now, to claim priority in suggesting its use in the treatment of various nervous diseases, including epilepsy and migraine, in appreciable doses. Dr. A. J. Minor and I conducted a series of experiments in 1875, which were subsequently published.* I afterwards suggested its use in epi-

* American Pathological Journal, Feb., 1876.

lepsy,* and see no reason to change the views I then enunciated, viz., that it was an excellent substitute for amyl nitrite, that it was serviceable as an abortant in epilepsy, and was of great benefit in sick headaches. I should not make this claim of priority were it not that a recent article has appeared upon the treatment of epilepsy in which no mention is made of my original discoveries. I presented, in 1876, the formula for the alcoholic solution which you speak of in your editorial, and which has since been employed.

After using the drug freely for eight years, I can say that I have never seen a case of poisoning, nor any grave or lasting nervous disturbance from its administration in the ordinary doses. In my own experiments, I, upon one occasion, took one drop of pure nitro-glycerine, and a number of alarming symptoms were developed. The initial disturbance was a feeling of indescribable headfulness, a galloping, full pulse, an impending confusion, which deepened into semi-consciousness and temporary blindness. I was intensely sensitive to noises, and the laying of a friend's hand upon my shoulder caused me to start violently forward. This condition passed off in a few minutes after a solution of bromide of sodium had been taken, and was followed by protracted vomiting, which was almost of a cerebral character. For several days I suffered from after-effects, such as attacks of dizziness, transient blindness, and great weakness of the lower extremities.—*Therap. Gaz.*, June.

SALICYLIC ACID.

While experience has proven that salicylic acid does not diminish the dangers of acute articular rheumatism—the percentage of heart complications, if we can rely upon statistics published, being rather higher since the use of this medicine than under the former alkaline treatment—the remedy is as near a specific in this disease as we will perhaps ever possess. But it should be given in large doses, and frequently enough. If correctly administered, it will invariably reduce the temperature, lessen the severity of the inflammation and swelling, palliate, not only the excruciating pain, but totally remove the latter in the majority of cases, and lastly, decidedly shorten the duration of the disease. Of this we have often, in private and hospital practice, the opportunity to convince ourselves. There are still many physicians who either have not as yet used this remedy at all, or did not succeed in gaining the results mentioned. Such physicians generally hesitate to push the treatment, because they are afraid, and dread the collapse about which so much has been written. But while the practitioner has frequently been cautioned not to push the remedy till the collapse takes place, and, to make matters worse, while

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* Chicago Med. Journal and Examiner, Dec., 1876; and Nervous Diseases, their Description and Treatment, first edition, 1876, p. 411.

it has been said that such accidents may happen suddenly, no sign has been given by which the less experienced physician might know when to stop. A long acquaintance with the drug has convinced us of the truth of the following assertions:

(*a*) Salicylic acid or its combinations can be given to an adult suffering from acute articular rheumatism, in doses of twenty grains every two hours, without any danger, *as long as the pulse does not beat below* 84 *in a minute.* Whenever the pulse falls below 84, the dose has to be decreased to ten grains, or, still better, the frequency of the original dose is diminished, say every four hours or three times daily, instead of every two hours. Should the symptoms again become worse and the pulse increase in frequency, the physician can without any risk administer the drug the same way as at first, and continue it again, till either there is no more necessity for such large doses and their frequent repetition, or the pulse begins again to drop below 84; amelioration of the symptoms and decrease of the pulse rate going hand in hand.

(*b*) Instead of giving salicylic acid alone, the following combination acts better, and—if the first rule be observed—is safe, even in cases of pre-existing organic heart lesions, and seems decidedly to lessen the danger of endo and pericarditis arising as complications:—

℞.	Acidi salicylici,	ʒss	
	Liquor, ammoniæ acetatis,	f ʒij	
	Aquæ destillat.,	f ʒ iij	
	Syrup. cortic. auranti,	f ʒj.	M.

Sig.: A tablespoonful in water every two hours.

If this combination is prescribed, and the first rule followed, our readers will find that, in cases of acute articular rheumatism, the effect of salicylic acid mentioned above will invariably take place, but collapse never happen.—*Med. and Surg. Report.*

ON THE USE OF IPECACUANHA DURING LABOR.

The value of ipecacuanha as an emetic and expectorant has been well known and appreciated for an indefinite period. About two years ago my attention was drawn to an article written by a Southern physician, in which it was affirmed that it increased the expulsive power of the uterus if administered in cases of tedious labor. I determined to give it a trial. During September of last year I was called to attend Mrs. C—— during her confinement with her third child. She had had sharp pains for nearly four hours. I found her in a very nervous state and greatly excited, and apprehending some calamity. On examination, introducing my finger into the vagina, I found the os hard, rigid and undilated; with difficulty

I passed my finger into the os, and just at its internal edge I noticed a constricting ring utterly devoid of elasticity. Her pains continued, but were very irregular, and after a period of two hours no visible effect on the rigid os was noticeable. I then administered a five-grain powder of ipecacuanha, repeating it twice at intervals of about twenty minutes. To my surprise, the patient soon became much quieter, and ceased her cries of pain, which before were to be heard distinctly all over the house. On making another examination, I found the os softened and dilating rapidly under the pains, which were now regular and strong. Labor was soon completed without further difficulty. I have used it in several cases since where the pains were irregular and the os rigid and undilatable, and always with benefit. I do not think it increases the muscular power of the uterus. It seems, however, to have a specific effect on the rigid os uteri, softening and relaxing its fibres, as well as a co-ordinating influence on the irregularly contracting uterine muscles, causing them to act in harmony, Opium and ergot are the only oxytocics of value at our command, but many serious accidents have followed the injudicious use of the latter, and its effects are often far from what we desire. Hence, the discovery of any remedy which will alleviate the sufferings which the parturient female has to undergo during protracted labor and hasten its favorable termination, will be heartily welcomed. I would much like to hear the experience of other physicians whose obstetric practice will allow of their giving it a fair trial.—*Dr. L. F. Pitkin, in Medical Record. Mich. Med. News.*

LEMONS, THE ELIXIR OF LIFE.

Dr. William Schmöle, Professor of Pathology in Bonn, (*Medical Record*) writes a treatise on the "Wissenschaftliche Künste zur Verlängerung und Verschönerung des Menschlichen Lebens," which being translated is, "A scientific method of prolonging and making comfortable human life." He claims that this long and eagerly sought for end may be secured by eating lemons. He bases his method upon the hypothesis that the condition known as old age is produced by a misproportion between the organic framework and inorganic constituents of the human body. In order to prevent this condition and preserve the elasticity of youth, it is only necessary to introduce some substance which will dissolve the excess of mineral matter and allow of its absorption and excretion. Such substances are the inorganic acids, and chief among these, citric acid, the next in value being lactic acid. Citric acid is best taken in the form of lemon juice, and it is recommended that a person swallow the juice of from two to eight lemons daily, year in and year out! Such a practice also secures one against the attacks of rheumatism, which afflict old age. It also pre-

vents the degeneration of the arteries and the calcifications of the vascular system. Our speculative author also avers that many of the fevers and inflammatory diseases of old age are due to reflex and sympathetic processes. He states that a treatment which benumbs these reflexes will tend to ward off such complications. For this purpose he advises small and frequently repeated doses of acetate of morphia. The number of cases illustrating the effects of this scientific elixir vitæ are very small. One person, who fed himself on lemons as directed, died at the age of 110, and then his death was an unnatural one.—*Michigan Med. News*, June 10.

MICRO-ORGANISMS AND DISEASES.

Dr. Declat, with the object of going straight at the source of the mischief, suggested the vigorous use of phenic acid, by injecting into the veins and otherwise, as a means likely to prove effective against the organisms of yellow fever and kindred acute forms of malarial poisoning. The suggestion went out to Brazil, and in June last, M. DeLacaille, a French physician residing in Rio, wrote home his experience of it. The first case in which he tried it was a young lady apparently on the point of death from the worst of the disease—a fever attended with the fatal black vomit. In three days she was out of danger. "During the thirty years in which I have been employed in fighting yellow fever," writes M. DeLacaille, "this is my first patient whom I am certain of having snatched from death at such a period of the disease." In a dozen other cases the treatment was crowned with equal success; but in most of them, adds M. DeLacaille, "the cure was so rapid that, notwithstanding my long experience, I have asked myself if they could really have been yellow fever. Called in at the period of incubation, the triumph is easy."—Cameron, Social Science Congress.—*N. Y. Medical Times..—Southern Medical Record.*

POST GRADUATE COLLEGE.

A college of this kind has been instituted in St. Louis, whose object is to teach medical practitioners, by practical instructruction, the special branches of medicine and surgery. There will be twelve departments, so arranged that special courses may be taken with as little loss of time as possible. The following gentlemen have been elected to fill part of the departments. Drs. T. F. Rumbold, E. Borck, W. H. Ford, W. Dickinson, W. B. Outten, F. T. Ledergerber, attorney at law, and Dr. C. H. Hughes. For further particulars, enquire of the dean, Dr. T. F. Rumbold, 1225 Washington Ave., St. Louis, Missouri.—*Chicago Med. Rev.*

PRURITUS ANI.

For twenty years I have suffered from that annoying disease pruritus ani, and had placed myself under the care of various physicians at different times, but without the least benefit. About two years ago, I noticed a brief paragraph in the *Medical News*, to the effect that balsam Peru would relieve that trouble. I tried it; and it gave immediate and entire relief. The disease still clings to me, but when it becomes annoying, a single application of the balsam affords relief. Of all the medicines which I have tried, this is the only one that has had any effect.—*Cincinnati Lancet and Clinic—Southern Medical Record.*

A NEW DISEASE.

A California physician who discovered a new disease—love madness—has been experimenting with the person afflicted therewith and has produced the "love parasite," or bicillus micrococus. This he cultivated up to the twentieth generation, and with the parasites of that generation he inoculated a number of subjects. The inoculation was invariably successful, symptoms of the disease appearing a very short time after the operation. A bachelor, aged fifty, on the first day after the inoculation had his whiskers dyed, ordered a new suit of clothes and a set of false teeth, bought a top buggy, a bottle of hair restorer, a diamond ring and a guitar, and began reading Byron's poems. The inoculation produced symptoms of the same nature in a young lady of forty-five. She spent five dollars at a drug store for cosmetics, bought a lot of new hair and a croquet set, sang "Empty is the Cradle," sent out invitations for a party, and complained that the Chico young men do not go into society. An inoculated youth of seventeen, employed in a country store, did up a gallon of molasses in a paper-bag, and also, in a fit of absent-mindedness, put the cat in the butter tub and threw some fresh butter out of the window. Finally, he sat in a basket of eggs while looking at a photograph of a pretty girl, and was discharged for his carelessness. The Chico doctor is still experimenting, and will soon lay the results of his observations before the medical world.

PROLONGED GESTATION.

Dr. Lewis A. Rodenstein (New York Medical Journal, May, 1882) reports four well established cases of prolonged gestation. In the first case, gestation occupied a whole year; in the second case, three hundred and twenty one days; in the third case, three hundred and thirty-five days; in the fourth case, three hundred and fifty days. These cases tend very strongly to support the justice of the French law, that the legitimacy of a child born three hundred days after the death or departure of the husband cannot be questioned.—*Chicago Med. Rev.*

Editorial Department.

SHIP ISLAND QUARANTINE STATION.

It was our intention to publish in this number the yellow fever statistics of Ship Island Station for the present year. These statistics are to include the number of ships from infected ports; the number actually infected; the number of cases from each vessel, the results of treatment, and various other facts connected with the management of the Station. It occurs, however, that some of these statistics are still incomplete, and it is therefore necessary to postpone their publication until our November issue.

In the meantime, many misstatements have been made respecting the mangement of Ship Island. Some of these will, no doubt, receive all proper attention at a future day. But in part refutation of some of these, we publish the following official paper from the Board of Health of Harrison county, which embraces that portion of the gulf coast of Mississippi nearest to Ship Island.

Resolved, That the Board of Health for Harrison county, Mississippi, in answer to the published statements of Dr. Jones, President of the State Board of Health of Louisiana, declare that, in their opinion, the quarantine established at Ship Island, by the National Board of Health, is a perfect success, as proven by the fact that there has not been a single case of infection arising from communication therewith; that this Board has implicit confidence in the measures taken by Dr. Scales, the Superintendent of the Station, appointed by the National Board, and also the recognized quarantine officer for this county, and who is acting under the authority conferred by this Board for the preventing of communication with the hospital and vessels in quarantine, and they do not believe that there has been communication by pilots or others with the hospital or infected ships.

In one case, which is yet under investigation, a pilot was charged with communicating with the yawl boat of a vessel from Aspinwall, upon which there had

been a case of Chagres fever. This violation was promptly reported by Dr. Scales, and legal measures will be taken for the punishment of the offender, if guilty: further, that, in the opinion of this Board, there being no communication allowed between the Hospital, Lazaretto or Quarantine Anchorage, with the shipping, six miles therefrom; that there is no danger of infection, no cargoes or ballast being discharged on the mainland from vessels arriving from foreign ports—no danger therefrom is incurred. In short, in the opinion of this Board, that all proper and reasonable precautions have been and are taken by the Health Officers for the prevention of infection arising from cases at Ship Island Quarantine, which opinion is supported by the fact, that as yet, not a single case has occurred, and that the mode adopted for the absolutely necessary communication to obtain supplies for the sick, is as perfect as well can be adopted.

A true copy from the minutes of the Board of Health for Harrison county, held September 16th, 1882.

(Signed) F. S. Hewes,
Secretary B. of H. for H. Co., Miss.

YELLOW FEVER IN NEW ORLEANS.

New Orleans, Sept. 20, 1882.

To the Editors of the Medical and Surgical Journal:

Gentlemen:—Will you allow me to call your attention to the following extract in the last number of your valuable journal:

"It is confidently maintained that New Orleans will never succeed in preventing the spread of yellow fever, or in securing the confidence of its neighbors, until our physicians execute rigorously the above well-considered programme for the determination of suspicious cases; and, until all such cases as that of the old man just reported are pronounced suspicious, and every sanitary precaution against yellow fever is promptly enforced. Unfortunately, our press and public discourage physicians from reporting suspicious cases; hence their *reluctance* and *delinquency*. The history of New Orleans presents many instances where physicians have been grossly abused for reporting yellow fever cases, but no one instance where a physician has ever been censured by the public for *the very grave and frequent fault of neglecting to report them*. Thus does the public encourage the negligence of public duty."*

* The Italicisms are my own.

It is not necessary to look between the lines of this paragraph to discover its meaning. The written sentences proclaim to the world, in unmistakable terms, that the citizens, the newspapers, and the medical profession of New Orleans cannot be believed when there is any question as to the existence of yellow fever in the city. Now the public and the newspapers can take care of themselves, but as a member of the medical profession, which is here charged with the concealment of yellow fever cases, I indignantly protest against the truth of this most unjust and damaging accusation. I trust that the majority of your readers are too well acquainted with most of us to believe that we could be guilty of this "grave and frequent fault," but perhaps there may be some who, influenced by your high position and your good name, may seriously misjudge us. To such I beg leave to say that a residence of nearly twenty-five years in this city as a public teacher and practitioner of medicine, and a personal acquaintance with not less than three-fourths of the members of the profession in the parish of Orleans, justify me in asserting that a more high-minded, honorable and ingenuous body of gentlemen cannot be found in any city. To discredit them in the estimation of strangers, and thus not only to bring reproach and shame upon the profession, but to invite harsh, unjust and oppressive quarantine restrictions against this community, was doubtless very far from your intention, but if such has been the sad effect it is no fault of your readers.

In conclusion, permit me to suggest to you, that it is due to the public, as well as to the medical profession, that you should publish all the facts upon which your accusation rests, in order that the guilty, if such there be, may be made to suffer alone, and the grave imputation of dishonesty be removed from the innocent, who are now alike suffering under the weight of your reproach.

I am, very respectfully, your obedient servant,

T. G. Richardson, M. D.

The writer of the foregoing, suggests that "it is due to the public, as well as to the medical profession, that you should publish all the facts upon which your accusation rests, in order that the guilty, if such there be, may be made to suffer alone, and the grave imputation of dishonesty be removed from the innocent, who are now alike suffering under the weight of your reproach."

Our respected friend, it appears to us, makes a very unusual call upon editors of a medical periodical. Why not allow us to exercise the minister's privilege of rebuking the sins of his congregation, without being forced to come down from his pulpit and take the sinners by the throat in order that the innocent may be exonerated? Why may we not be permitted to say, with Thackeray: "At any time, if we can awaken scorn for untruth, pretension and imposture, we are repaid for our trouble"? But in discharging this duty, shall we not be permitted to assail these faults in the abstract, without being compelled to individualize the persons guilty of these offences?

But the reader will please note that the editorial in question was directed principally to the supposed delinquency in reporting "suspicious cases."

Does not the writer of the letter know that there is a sentiment in the minds of many members of the medical profession that "suspicious cases" ought not to be reported?

Does he not also know that there are yet physicians in New Orleans who honestly believe that natives are exempt from attacks by yellow fever? In order to meet these difficulties, it was considered better to adopt a group of symptoms which should represent a "suspicious case" for sanitary purposes, and for that alone. Acting under this code or a similar one, I pass by my neighbor's house at night, and see a "suspicious" light underneath. I hasten to alarm the occupant, although I am not able to determine whether it be merely a firefly, or a dangerous torch.

We are not a whit behind our respected friend in our appreciation of the medical profession of this city. We are about

as good as they are in any other place that we know of; perhaps a little better than in many places. But if some one amongst us does not occasionally fall down and worship a golden calf, or introduce the "affections" of cotton into his medical nosology;* or, if some one amongst us is not derelict in reporting "suspicious cases"; or, if no member of the profession here is likely to be influenced by newspaper abuse, instigated by one of his own craft; or, if all these same difficulties, fears and failures to report cases, are not known to be common the wide world over in regard to infectious diseases, then the millenium is already here, and the medical editor may stop scolding, and the preacher cease to bruise his soft hand on the hard desk in vehement denunciation of sin.

We demur to any accusation of bringing an "imputation of dishonesty" against our profession, for whose benefit we have given some years of labor. We demur again to a charge, which will prove to be popular in some circles, of inviting "unjust and oppressive quarantine restrictions against New Orleans."

We believe that our record will sustain us in both of these positions.

Reviews and Book-Notices.

The Pathology and treatment of Yellow Fever; with some remarks upon the nature of the cause and its prevention: By H. D. Schmidt, M. D., Pathologist of the Charity Hospital of New Orleans; member of the Academy of Natural Sciences of Philadelphia; of the American Neurological Association; of the American Association for the advancement of Science; Honorary member of the New Orleans Medical and Surgical Association, etc. etc. With five illustrative plates. 8vo. pp. 240. Chicago: The Chicago Medical Press Association. 1881. [Sold by Armand Hawkins, 196½ Canal street. Price $3.00.]

The appearance of a medical book from the pen of a Southern writer is alone an event worthy of record, and the advent

* "And cotton was affected 13 points accordingly."—Report State Board of Health, meeting 14th September.

of a good and lasting book still worthier of general recognition and congratulation. After this utterance, which may be looked upon as a frank avowal of our literary inactivity, which by no means is a reflection upon the intellectual capacity of the South, or upon its future status, and even greatness, in the world of letters, we are ready to acquaint our readers with the gratification we experienced when we recognized in the work before us the name of the well-known and honored Pathologist of our Charity Hospital. "A Treatise on the *Pathology* and treatment of yellow fever," of this character, was truly a desideratum.

For years past, and in fact, since the foundation of the Charity Hospital, previous to the great epidemic of 1878, the fatal plague swept in successive waves over our city, and the rich stores of pathological material, heaped up in the great charity, passed away, scarcely touched, if at all noticed; for, outside of the incomplete labors of the distinguished Riddell, and more recently of his successor, Dr. Joseph Jones, the examination of yellow fever tissues can hardly be said to have been conducted on a par with scientific progress. The insufficient knowledge derived from the inspection of the anatomical remains with the unassisted eye, was here, as in most countries of yellow fever prevalence, the only product of dead-house labors. And these, we may state without much fear of contradiction, were, in almost all cases, limited to simple confirmation of what had already been discovered and recorded by the great French masters Louis, Chervin and Trousseau; whose thorough and ever enduring work among the victims of the terrible Spanish epidemics, has forever done away with the necessity of further inquiry into the *gross* appearances of the anatomical specimens of yellow fever. What really demanded attention was the histology of yellow fever which now, amongst us, at least, need complain no more of lack of investigation. For, in our last epidemic, the great morbid collection was utilized and formerly subjected to the searching scrutiny of one whose pre-eminent ability to handle the microscope, no one, we

feel certain, will attempt to question. As an outcome of the study so silently but diligently pursued, at that busy epoch, we have the present volume. It embraces, however, not only the results of the systematic researches, of 1878, but also the fruits of an extensive experience and study in former years, when the author was not officially connected with our great hospital.

From our personal knowledge of the author, and judging also from his past writings, we were led to believe, even before perusing the work that the cautiously adopted title "Pathology and treatment of yellow fever; with some *remarks* (only) upon the nature of its cause and its prevention," [though these "remarks" fully involve one good half of the work] would serve as a key to its true aim and value, and accepting this interpretation as our guide, we believe, after carefully scanning its pages, that we did not err in our first impression. Indeed, Dr. Schmidt, has shown himself here, as elsewhere, a careful and accurate microscopical pathologist; his superior ability in the minute methods of research is clearly revealed in the micro-pathological section of the work, and we venture to assert, that his analysis of the *histological lesions* of yellow fever is the most thorough and satisfactory ever published in any language, and should rank him one of the highest authorities upon this special subject. We find, however, that a partiality for his favorite instrument has influenced his ideas in many parts of the work where it has possibly left a too distinct impress, thus: the clinical sketch of the disease is embarrassed and rendered digressive by frequent excursions into the microscopical field; the gross and microscopical anatomy which follows is, of course, very properly detailed and exhaustive; though here a peculiarity is noticeable which, to one acquainted with normal histology, would render this part somewhat prolix, i. e. the length and minuteness of the preliminary descriptions of the normal tissues, in which the author has indulged, preparatory to the discussion of the morbid appearance. This fault, however, will undoubtedly redound greatly to the benefit of the uninstructed in such matters, who, we fear, are unfortunately

only too many. As particularly interesting and worthy of attention in this section, we would recommend the learned presentation and discussion of the facts and theories concerning the nature and mode of formation of renal casts.

In the treatment of the general pathology, a chapter bristling with the very latest facts and opinions pertaining to this domain, and richly adorned with evidence of erudition culled mainly from the most noted of recent German authorities, we find the microscope playing the part of pedestal to many of the opinions emitted. In the extensive remarks upon the nature of the poison we again discover the microscope at work, and evidently at the bottom of the author's creeds; for instance, as the leading argument against germ-theory, the belief is expressed: "*That yellow fever does not depend upon the presence of bacteria or any other minute living organisms in the blood or tissues*, for, if it did, *the microscope would most certainly show them*, as well as it has done in those other particular diseases mentioned," (alluding to charbon, relapsing fever, etc.,) p. 190.

This, of course, is not the only style of argumentation employed, it is merely an instance of the bias lent to the author, by his microscopical experience; other numerous reasons are addressed and culled from such sources as Lewis', Cunningham's and Bastian's writings, to combat the contagium vivum hypothesis, a theory which Dr. Schmidt believes to be altogether inferior, in its explanation of morbid phenomena, to the "glandular hypothesis," which he emphatically supports. He believes the yellow fever poison to be "an animal poison," allied or analogous to the exanthematic poisons, and like them communicable from person to person. In other words, he is a contagionist. He also believes that in yellow fever "as in all other contagious diseases, it is in the secretions, especially those of the glandular cells of the skin and the respiratory passages, that the noxious poison is contained, and with which it is removed from the system," (p. 203.)

Naturally, as a contagionist, he is a believer in quarantine, and advocates all those prophylactic practices which would

prove most conducive to the protection of threatened and infected localities. In the practical chapter on treatment, the author recommends a thoroughly scientific and rational mode of practice. It is chiefly directed to meet the indications, and coincides in every particular with the usual "symptomatic treatment." Among the measures most insisted upon by Dr. Schmidt, is the reduction of the cerebral hyperæmia of the early stages by cold compresses *largely and continuously* applied to the head. He claims to have derived great benefits from this application in past epidemics.

In this brief and imperfect survey we have endeavored to indicate that, in our belief, were the strongest and most original portions of the work; in doing so we fear that we have underated its other parts which, though secondary, are nevertheless deserving of commendation as their perusal will always be followed by the ever advantageous acquisition of knowledge.

In fact, we heartily believe the author is deserving of congratulation and encomium for the production of this valuable work. We think it deserves a high place in yellow fever literature; it is certainly an admirable exposé of minute yellow fever pathology by a thoroughly competent writer, and, on this account, should be in the hand not only of the student of yellow fever, but in the libraries of those who would pretend to be well informed physicians.

We could not close this review without noticing the illustrative plates with which the text of this book is adorned.

There are five in number and were originally drawn upon stone by the author. We can only say of them that they are perfect beauties of medical draughtsmanship, and would be regarded as highly creditable to any professional artist. When we consider that they are not only the work of an unpretending medical man, but that they are the productions of a hand crippled and distorted by articular rheumatism, and imagine the inconceivable difficulties which must have cramped their execution, they cease to be gems of art, they are marvels!

R. M.

Books and Pamphlets Received.

Report on Ophthalmology. Made to the Medical and Chirurgical Faculty of Maryland, at the eighty-fourth session, April, 1882. By Julian J. Chisolm, M. D., Baltimore, Md.

Rupture of the Eye Ball in its Posterior Hemisphere from a Blow in the Face. By Julian J. Chisolm, M. D., Baltimore, Md.

The Opium Habit; Its Successful Treatment by the Avena Sativa. By E. H. M. Gill, A. M., M. D.

Two Cases of Malignant Tumor of the Sphenoidal Cavities Implicating Vision. By Julian J. Chisolm, M. D., Baltimore, Maryland.

Current Fallacies about Vaccination. A Letter to Dr. W. B. Carpenter, C. B. By R. A. Taylor, M. P.

Observations on Surgery in Children. By Edward Bourk, M. D., St. Louis, Mo. Reprint from the St. Louis Medical and Surgical Journal, June, 1882.

University of Maryland. Seventy-fifth Annual Circular of the School of Medicine, Session 1882–83.

Twenty-Second Annual Announcement of the Bellevue Hospital Medical College, Session 1882–83.

Sixty-fourth Annual Announcement of the Medical College of Ohio, Cincinnati, Session of 1882–83.

Twenty-Fourth Annual Announcement of the Chicago Medical College, Medical Department of the North-Western University, Session of 1882–83.

Forty-Sixth Annual Announcement Medical Department of the University of Louisville, Session of 1882–83.

Annual Announcement Memphis Hospital College and Medical Department of South-Western Baptist University.

Contribution to the Subject of Nerve-Stretching. By William J. Morton, M. D., New York.

The Diagnosis of Potts' Disease of the Spine Before the Stage of Deformity. By N. R. Gibney, A. M., M. D. Reprint from the Boston Medical and Surgical Journal.

METEOROLOGICAL SUMMARY—AUGUST.
STATION—NEW ORLEANS.

DATE	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.
1	30.035	83.8	72.3	S. E.	.08
2	30.008	80.2	79.7	S. E.	.45
3	29.981	82.4	78.0	East.	.15
4	29.922	80.7	80.7	S. W.	.37
5	30.068	78.2	82.3	S. E	.28
6	30.129	80.0	78.7	N. W.	....
7	30.120	81.4	73.9	East.	.....
8	30.052	83.2	70.3	N. E.	.03
9	30.015	81.9	72.9	West.	.56
10	30.050	78.2	71.3	S. E.	.07
11	30.056	79.2	77.7	East.	.10
12	30.074	78.3	80.9	South	.01
13	30.069	81.2	76.0	South	.02
14	30.027	81.7	77.7	S. W.	.....
15	30.026	82.3	70 7	N. W.	....
16	30.067	84.7	68.0	N. E.	.....
17	30.043	83.3	72.0	N. E.	.25
18	30.016	81.8	68.7	N. E.	.....
19	30.035	81.2	63.0	North	.04
20	30.087	77.3	77.7	S. E.	1.48
21	30.091	78.3	84.0	S. E.	.08
22	30.086	79.7	88.0	S. E.	.98
23	30.051	78.7	81.0	N. E.	.87
24	29.991	77.7	88.0	S. E.	.88
25	29.952	79.7	86.0	S. E.	.30
26	29.971	80.5	84.0	East.	1.29
27	29 967	78.5	88.0	S. W.	.....
28	29.857	80.3	79.0	West.	.....
29	29.909	79.7	75.7	S. W.	.....
30	29.995	81.2	76.7	S. E.	.03
31	30.038	79.0	85.3	S. E.	.74
Sums.	.....	.....	.....	.....	.....
Means	30.023	80.0	77.5	S. E.	9.47

GENERAL ITEMS.

Mean Barometer, ———.
Highest Barometer, 30.170, 6th.
Lowest Barometer, 29.815, 28th.
Monthly Range of Barometer, .355.
Mean Temperature, ——.
Highest Temperature, 91.0, 17th.
Lowest Temperature, 72.5, 11th.
Monthly range, ——
Greatest daily range of Temperature, 15.5, 7th.
Least daily range of Temperature, 6.5, 12th.
Mean of Maximum Temperature, 86.6.
Mean of Minimum Temperature, 75.6.
Mean daily range of Temperature, 11.0.
Prevailing Direction of Wind, S. E.
Total movement of wind, 3158 miles.
Highest Velocity of Wind and Direction 24 N. W.
Number of Clear Days, 5.
Number of fair days, 19.
No. of cloudy days on which no rain fell, 7
Total No. of days on which rain fell, 24

COMPARATIVE TEMPERATURE.

1873.....	84.2	1878.....	83.5
1874.....	83.9	1879.....	81.0
1875.....	79.3	1880.....	81.3
1876.....	82.2	1881.....	82.8
1877.....	83.1	1882.....	....

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873.....	8.30	1878.....	5.31
1874.....	4.82	1879.....	10.44
1875.....	8.61	1880.....	4.60
1876.....	4.44	1881.....	4.21
1877.....	2.54	1882.....	....

L. DUNNE, *Serg't, Sig. Corps, U. S. A.*

MORTALITY IN NEW ORLEANS FROM AUGUST 12TH, 1882, to SEPTEMBER 9TH, 1882, INCLUSIVE.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
August 19	1	7	16	4	1	104
August 26	0	11	18	5	0	98
September 2	0	16	15	5	2	113
September 9	0	8	13	4	2	95
Total.....	1	42	62	18	5	410

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

NOVEMBER, 1882.

ORIGINAL COMMUNICATIONS.

Chapters from Report of Yellow Fever Commission of 1878.*

PART II, CHAPTER 1—SUMMARY REMARKS.

NATURE OF YELLOW FEVER.

By S. M. BEMISS, M. D., Professor of Theory and Practice of Medicine and Clinical Medicine, University of Louisiana; Member National Board of Health, etc.

Yellow Fever is a specific disease; and if such, a specific cause is a necessity for its production.

No better definition of yellow fever can be given than that it consists in the sum of those changes and symptoms produced by the presence of a special poison in the human system.

No other evidence is required to establish the specificity of the disease than that afforded by the history of epidemics with regard to their mode of spread, and also to the symptomatic phenomena marking the clinical details of cases. As far back as the history of the disease reaches, we find the distinctive features of yellow fever so characteristic, and so unchangeable, as always to identify it, and thus illustrate its specific nature. Even non-professional observers give the strongest pos

(*See note at close of Chapter I.)

sible expression to their recognition of yellow fever as a specific disease,—possessed of distinctive characteristics, by investing it with an imaginary personality. Under the influence of this sentiment they speak of it as "Bronze John," or "Yellow Jack."

Again, clinical experience soon satisfies the earnest and fair observer that it is not convertible with other specific diseases. The combination of yellow fever poison with the germs of other specific diseases, outside the human system, is both an unproved and improbable event. Its miscibility with those poisons as a clinical event, is limited to their associate existence in the same system, and the production to a certain degree, of a pathology compounded by the symptomatic phenomena peculiar to each disease.

In 1878 marsh malaria was the only poison which, under my observation, complicated yellow fever cases. This poison does not impress the system in such a manner as to favor immunity from attacks of yellow fever. On the contrary, if I were to say that malarial toxæmia invited rather than repelled the incursion of yellow fever poison, I should only declare the results of my own observation. But even admitting that this inference is true, it does not prove that any correspondence in mode of action between the two poisons, determines the truth. It seems to me more than probable, that the recently-delivered woman is in a similar conjuncture of danger of attacks, and here no specific poison is supposed to present.

But in speaking or writing of "specific diseases," it should be remembered that a poison however specific, does not produce in different systems, symptoms precisely analogous. Some divergence must occur from the fact that secondary poisons invariably succeed the action of primary poisons. The character of these secondary blood inquinations is ruled by the variable conditions of the systemic fluids at the period of introduction of the primary poison. But it may be safely stated that the divergence in the clinical phenomena, or pathological sequence of symptoms of yellow fever, are far less marked than in other infectious diseases. The poison, therefore, must be invested with

the most strongly marked attributes, as it relates to its operations upon the human system. If this were not true it would be impossible to formulate, as we now attempt to do, the sequence of changes and clinical events in cases of this disease. Whenever these are formulated by competent and truthful students of yellow fever, the results are wonderfully uniform. Those who think differently in regard to this point, are generally careless or incompetent observers. Especially is this true of those writers who teach that the specific gravity of the urine is increased in yellow fever as in most other febrile states. They forget that the albumen-bearing kidney eliminates solid constituents with difficulty, if at all.

The essential nature of the yellow fever poison is as yet unknown, but I think the opinions expressed in propositions 2 and 3 of the Board of Experts, appointed by the Joint Congressional Committees on Epidemics, December 18th, 1878, may be safely adopted.

"(2.) The specific poison of yellow fever has never been chemically nor microscopically demonstrated, nor* in any way made evident to the human senses. Nevertheless, we hold that it is safe to assume that it is material and particulate, and endowed with the ordinary properties, and subject to the ordinary laws of material substances.

"(3.) We hold further, that facts connected with the dissemination of yellow fever warrant the inference that the yellow fever poison is not only material and particulate, but that it is also organic, and endowed with the vital properties of growth and reproduction."

I believe that the facts which have been collected justify the theorem that yellow fever poison is principally, if not wholly, reproduced in the human body. The histories of the first cases at Port Gibson, Lake, Canton, etc., seem to demonstrate the truth of this theorem. In this connection, however, it must be mentioned, that the natural history of yellow fever poison affords a certain degree of support to the opinion that under favorable meteorologic and telluric conditions, it undergoes

*Yellow fever, like many other diseases, has a characteristic odor; but whether this odor belongs to the yellow fever poison itself, or to some incidental product of the pathological process excited by it, is not known.

some form of outside change the human body which increases its toxic effects. Witness, for example, the singular local attachments of the poison, so often observed during the prevalence of yellow fever. A certain locality, or area of a city may be intensely infected by yellow fever, while other parts are entirely free from it. These conditions may exist with but little change for one, two or three months. Under such circumstances the medical observer can often define quite precisely, the boundaries of the infected districts, and warn unprotected persons of the danger of entering within those limits. It must be admitted, therefore, that under these circumstances the yellow fever poison has a degree of life and permanence of presence, not exhibited by it except in infected localities. In other words, it must *infect localities* either by some quality which causes it to adhere to material substances when accidently brought in contact with them, or because on the other hand, these substances afford it an area for growth, or *point d'appui* during certain life cycles which it may be capable of undergoing outside of the human body. While it is not known by which of these methods places become infected by yellow fever, there is one very old and often quoted observation which favors the belief that the materies morbi is capable either of multiplying itself in the open air or of extending its area of prevalence in some manner quite independent of atmospheric currents. This is the slow but regular extension of the boundary of infected localities which marks some epidemics; an extension often apparently uninfluenced by human intercourse. Some observers have endeavored to formulate this rate of progression of yellow fever poison, asserting that infected localities enlarge their boundaries "forty feet" daily. But I know of no authority supporting the accuracy of such a statement.

The atmosphere is undoubtedly the vehicle for the infection in the communication of the yellow fever poison to exposed persons. There are however certain peculiarities, in the behavior of yellow fever infection, which cannot, in our present state of knowledge be accounted for. I shall simply state these peculiarities as we and others have recorded them:

First. Yellow fever is spread with much more certainty

through means of infected localities or things than directly from the persons of the sick. Indeed, it is questionable if the poison as primarily developed in the human body is in a marked degree infectious. The fact is indisputable, that the unprotected may expose themselves with but little danger, around the sick bed of one seized in, or brought to, an uninfected locality; while it is exceptional that an unprotected person shall expose himself in an intensely infected locality and escape an attack.

Second. It must be understood, however, that the arrival of a person sick with yellow fever, or with the disease in its incubative stage, into an uninfected locality, is liable to be followed by a new focus of infection. If we take the ground that this is brought about by first infecting the surroundings of the sick person, we will be in accord with the opinion held by a large number of the oldest and most careful of yellow fever observers.

Third. The period which transpires between the occurrence of a case in a previously infected place and the establishment of a new focus of infection, varies from a few hours to many days, or even weeks. The circumstances determining this variation of time are very numerous. First, certain meteorologic, climatic and telluric conditions must concur to favor the life and probable maturation of the poison external to the human body, otherwise no new focus will arise, and the disease will terminate with the imported case. Next, the ventilation and state of the room and surroundings of the patient, and attention to cleanliness, and use of disinfectants, and more than all the isolation of the patient, with absolute denial of visits to his room, exercise an important part in preventing a new focus. In corroboration of this, witness the effect of unrestricted visits to Simonson's room in Port Gibson, and see the large number of cases developed August 18th among persons who had exposed themselves to the infected localities so quickly established. On the other hand, the Charity Hospital may be taken as a model of cleanliness, and many days elapsed before any patient with other forms of the disease, or attendants, fell ill with yellow fever.

Yellow fever is so feebly contagious from the person of the

sick that it is questionable, in instances where it is supposed to have been communicated directly from the breath or exhalation of the body, if the clothing or other things about the patient were not really the fomites to spread the disease.

Instances occurred in various parts of the country visited by the epidemic which strongly support the doctrine, that yellow fever infection undergoes some process of maturation after its escape from the bodies of the sick. There were instances in which persons coming from infected localities to those uninfected, conveyed the poison either in personal clothing, or in baggage to unprotected individuals in the localities they visited, and these cases originating new foci, the persons who imported the contagion afterwards suffered attacks derived from the infected localities to which they had brought the germs.

I desire to explain in a few words my observations regarding atmospheric agency in spreading yellow fever. There is no fact connected with the epidemic of 1878 which justifies a belief that yellow fever infection is ever received through food or drinks. On the other hand, I do not feel authorized to deny the possibility of such a mode of conveying the poison into the system. There is, however, abundant proof that the disease is usually contracted by inhaling infected air. Yellow fever must be numbered among those epidemic maladies whose special poisons are air-borne, and through that medium distributed. But it is remarkable with regard to yellow fever that its power to infect the atmosphere is limited to a shorter range than most other air-borne diseases: perhaps in truth, shorter than any other. No doubt various conditions of the atmosphere affect this characteristic of yellow fever poison, so as to increase its range of atmospheric distribution. High barometric reading should, in my opinion, be considered most important in the list; currents of air no matter how continuous as to time and direction, or how strong, appear to exercise but little influence on the spread of the disease.

The histories I have collated show one or two marked instances in which currents of air were supposed to have facilitated

the spread of the disease. In one instance, a woman claimed to have been infected by the "wind blowing over a steamboat moored at the opposite shore more than three hundred feet from the house." It is, however, much more likely that personal communication, the circumstances of which she wished to conceal, had imparted the infection.

We cannot closely define the atmospheric condition most favorable to the spread of yellow fever. I have received a variety of reports, quite contradictory in character, as to the influence of ozone and atmospheric electricity on the spread of the disease. We may perhaps consider as the best practical criterion of "a yellow fever state of the atmosphere" that those conditions which favor the growth of mould upon leather favor the evolution and spread of yellow fever. This state of weather is best described by three words, "hot, calm and damp."

A paper contributed by request of Dr. Woodworth on the proper method of considering meteorological investigations in connection with yellow fever epidemics, will be found in appendix to this chapter, marked "a," also one on the same subject by Dr. Lawrence, marked "b," (both are omitted from these extracts.)

Yellow fever is altogether dependent on human aid to effect its transportation for any considerable distance. This fact has been everywhere demonstrated and at all periods of its history. The portability of the disease is not denied by any competent and candid observer. But some who acknowledge its portability, account for its outbreaks when the fact or mode of its importation cannot be established, by declaring that the infection has been caused by atmospheric waves, or clouds. Others affirm that the disease has sprung up de novo, from that combination of unknown conditions which to their view seemed capable of giving rise to yellow fever. It is impossible to disprove the latter allegations by any actual array of facts. If one in passing along the streets of an American city should meet an elephant of whose presence, existence, and previous history, he knows nothing except that the home of the animal is Africa and Asia, and a bystander should declare the ele-

phant had been created then and there by a combination of those conditions which first gave birth to him in his indigenous home, however absurd the assertion might be, the disputant would be without actual facts to disprove it. Yet the most cultivated students of the natural history of yellow fever believe its specific cause to be an organism which, however minute, owes its existence and power of reproduction to that same Omnipotence whose fiat gave life, and power to perpetuate his kind, to the elephant.

Others who acknowledge the portability of yellow fever and also its frequent importation, believe that though originally an exotic, it has become domiciled here. That the poison, under certain circumstances, may be preserved through a winter to be awakened to activity and energetic reproduction by the warmth of the ensuing summer, is quite well established. Nor are we able by any collection of scientific facts to set a limit to the preservation of the poison if kept continually under those precise conditions that protected it for one winter. But it is extremely improbable that accidental surroundings would so circumstance it, that it would survive a summer's warmth without having reproduced itself.

The lessons of 1879 are important, as evidencing the rare survival of yellow fever poison through the winter. It is beyond doubt that yellow fever prevailed in from twenty thousand to thirty thousand houses during the epidemic of 1878. We may not in justice suspect even *ten* of this number to have protected the poison until the summer of 1879, and cannot *absolutely* prove such protection in reference to any one of this small number.

The proofs that yellow fever has become domiciled in the United States are not convincing, even as they relate to New Orleans. Certainly we are able to say of these "indigenous" cases as has been shrewdly said of the St. Kilda epidemic of cholera;—such events *never* transpire except at those periods of the year and under those circumstances when there is at least a *possibility* of the importation of the disease.

Sanitarians should give especial study to the circumstances attending the hybernation, or even summer protection of the

yellow fever infection. My own researches lead me to conclude, that the *sine qua non* to such protection is a hermetical enclosure of the germs.

This has been most frequently effected by packing away infected woolen goods, blankets or bedding, in air-tight packages which were then placed in boxes or trunks. It seems also likely that it is necessary to a long survival of the germs that they be packed away during some particular stage of their life cycles, when they probably resist decay, or destructive change, more than at other periods of their natural duration. This assumption is warranted by the well-known facts that yellow fever poison is incapable of reproducing itself, or at all events of perpetuating epidemics, beyond some unknown number of repetitions of the process of reproduction. Epidemics seldom reach over a longer period than three months. After prevailing for about this period, they come to a complete termination, whether in tropical or temperate regions. The epidemic of 1853, and that of 1878, had each finished its course in New Orleans before frost appeared. If these propositions are correct, it would necessarily eventuate that new importations would be required to produce new outbreaks whenever epidemics had run their course in the United States, provided no poison had been placed where its vitality would be ensured until another season; and provided, also, the disease was not "domiciled" here. It is probable that the latter term can be properly applied to those countries where under a tropical climate, extreme conditions of unsanitary living, and utter carelessness as to intercourse between the sick and the well, incessantly renewed the disease by fresh importations from one community to another. In such places planting and harvest of yellow fever infection, are synchronous and perennial events. Havana combines all these conditions. Entirely in consonance with these opinions is the belief that yellow fever poison in its original home, wherever that may have been, was capable of sustaining its vitality and of reproducing itself independently of any reproduction in the human system.

Many observations made by different persons, in widely separated places, and at different epochs of time, concur in es-

tablishing the fact that yellow fever exhibits variable degrees of intensity and violence in different epidemics.

It is certainly true that observations of yellow fever epidemics show a variability of epidemic force in one as compared in the other. The "epidemic force" of a yellow fever outbreak can only be estimated by the degree of boldness with which one or the other, or better still, both, of two characteristics are outlined. First, the more or less sweeping character of the epidemic influence; second, the violence of the attacks as denoted by the mortality rate. An epidemic which includes in the aggregate sum of its attacks, the greatest relative number of unprotected persons exposed, and at the same time inflicts the greatest mortality rate upon its cases, must be admitted to exhibit the highest degree of epidemic force. Both of these characteristics were prominently displayed in the yellow fever outbreak of 1878, and marked the disease as being possessed of unusual epidemic force.

The factors which gave the epidemic these fatal endowments must have consisted in intrinsic alterations of the infection, either in regard to its quality, or quantity; or else in some cause, or causes affecting the populations invaded, rendering them more liable to attacks and more vulnerable when assailed. The populations attacked were so widely separated, and so variously circumstanced, that it is not possible to generalize any agency or conditions, whose influence extended over any considerable portion of them. In so far as the situation or surroundings of communities invaded could be seen to influence the course of the epidemic, the crowding together of unprotected persons was the chief factor in multiplying cases, and also in increasing the fatality among those attacked. It is hardly to be doubted that fatigue, anxiety, grief and fright all contributed to increase individual receptivity to the infection. But after granting to each of these factors its full influence in augmenting the force of the epidemic, it is extremely probable that the crowding of cases of yellow fever increased the quantity of the poison in the area occupied by the sick in a quite direct proportion to the number of cases and their proximity to each other. It is therefore more than probable

that accumulations of yellow fever poison attend crowding of cases, and add in an important manner to epidemic force by sheer augmentation of the quantity of contagion. We cannot by any form of observation known at present, determine anything whatever respecting any alteration of the intrinsic quality of yellow fever poison, rendering it more or less likely to affect epidemic force. It may be presumptively argued that the poison has a variability in noxiousness owing to unknown variations of the laws and circumstances governing its reproduction and subsequent maturation in different cases.

It is certainly true that the disease exhibits a most unaccountable difference in infectiousness. But it is not more eccentric in this respect than scarlet fever, which is sometimes so doubtfully contagious, and so mild, that Sydenham's remark appears still to be true. "Scarlet fever is only dangerous through the officiousness of the physician." It is however, acknowledged by all practitioners that scarlet fever is sometimes the most intensely contagious and the most malignant of all communicable diseases. The parallelism in the natural history of the poison of these two diseases is very striking in regard to the features just stated. Each may enter a large family of unprotected persons with a degree of violence, which inevitably results in death in every case attacked, and then may suddenly cease, leaving a greater or less number of the household without attacks though equally exposed with those who had died. The explanation generally offered is that some occupants of the house tolerated the infection without falling ill, because they got rid of the poison through its natural avenues of discharge from the economy, and so avoided that accumulation necessary for an attack. The fact that many circumstances which violently disturb the human system, seem to determine attacks in persons exposed to yellow fever, is strongly in favor of this belief. These are sudden wettings, or exposure to cold or fright, anxiety, grief, fatigue, etc. These causes can only act by revulsive effects which in some measure disturb vital processes. There is one marked break in the parallelism of the two poisons, viz., age lessens liability to attack in scarlet fever, whereas no such

characteristic attaches to yellow fever. Again, there is strong reason to believe that exposure to scarlet fever infection often gives immunity from any future attack, by some sort of protection conferred on the system. This may probably be by a silent percolation of the poison through the blood for a time sufficient to actuate those unknown changes which afford future exemption. No person can be properly said to be acclimated or protected against yellow fever who has not suffered one definite attack. It very often occurs that a person will pass through more than one severe epidemic of yellow fever without a symptom of illness, and yet succumb to the disease during some subsequent exposure.

Second attacks are of very infrequent occurrence. But it is so common to hear both physicians and non-professional observers speak of repeated attacks that erroneous ideas prevail upon this point. I have found the best mode of determining the truth of this statement to be the application of Dr. Marson's plan of estimating second attacks of small pox. When physicians have expressed their belief in second attacks, and have mentioned cases they have treated who had suffered previous attacks, my rule has been to enquire for the instances in which they have treated the same person in two or more attacks. I have found but one competent medical observer who had treated the same patient in more than one attack. One attack protects against the disease probably during the remainder of life. It is contended by some that residence for some years in a cold climate will do away with the protection afforded by an attack. I have no authenticated facts on this point. By referring to the history of the epidemics in Port Gibson, it will be seen that a lady whose mother had suffered attack of yellow fever some two or three months before giving birth to her, had escaped an attack of the disease, although the epidemic was so sweeping that very few were left unscathed.

No age, sex or circumstance of life protects against attacks of yellow fever. The negro race is far less liable to attacks and also to danger to life from attacks, than the white races.

But it is my observation that epidemics override this race privilege in direct ratio to their force or intensity.

I have had but little opportunity to make observations on the course of yellow fever in the Mongolian race; I only know that some fell victims to it in New Orleans. It is unquestionably true that the Latin races pass through epidemics with a smaller mortality rate, all other influences being equal, than the inhabitants of Northern Europe and their descendants. It is for the future pathologist to determine to what extent, if at all, difference in the anatomical constitution and the physiological function of the skin and sweat glands influence these results.

While convinced that filth and unsanitary habits increase the liability to attacks of yellow fever, and also the mortality of the disease, I believe that these results are owing more to the effect of these influences upon the constitutions of those who are guilty of infractions of sanitary rules than to any influence exerted upon the quantitive development, or virulence of the yellow fever poison. This remark simply expresses the sum of my observations in respect to filth and bad hygiene. Inferentially, some particular form of filth may afford the fittest soil, or hot bed for the maturation of the poison. Again, it is quite likely that the effluvia of filth may aid in the atmospheric diffusion of yellow fever infection by being more volatile, and by entangling the germs with their own floating particles. Even if these hypotheses may be safely eliminated, we still affirm that the lowered vitality occasioned by filth and bad hygiene, exercise a disastrous effect upon yellow fever epidemics.

In conclusion, I hold that yellow fever is a communicable disease. It is communicated by a special infection which is reproduced in the bodies of persons attacked, but which requires further changes after leaving the body before it is capable of producing new attacks. It is therefore not directly contagious like the eruptive fevers, but it is indirectly so, by the exposure of unprotected persons in close relation with localities, or things, upon which the infection is lodged during the developmental stages it undergoes after leaving the body.

These conclusions may greatly assist communities, or individuals, in avoiding spread of yellow fever. It must be remembered, however, that we do not know whether the infection as it first escapes from the system is susceptible of being diffused in the atmosphere, or whether it only becomes an air-borne agent in consequence of some other change. We cannot, in this state of ignorance, affirm that persons exposed near a patient sick with yellow fever, in any stage of the disease, may not receive the infection upon their clothing, which upon subsequent maturation, may become fomites for its dissemination.

The history of the epidemic comprises many instances in which fomites conveyed the infection. Some of these carriers of infection exhibited an almost marvellous intensity of the poison when considered in connection with the small compass of the material containing it. There is trustworthy evidence that a cotton bandana handkerchief communicated yellow fever to five persons who were all within range of its infection when first opened, and who were all attacked within five days after the exposure. But in all cases where the history of the derivation of the fomites could be ascertained, they come from localities known to be infected. In several instances the disease was brought into strictly quarantined districts by goods smuggled from infected places. I have found no instance in which first-class mail matter has been a carrier of infection.

PERIOD OR INCUBATION.

It would prove a valuable aid to efforts at protection against yellow fever, if more precise information could be gained respecting the period of incubation. Practically, we observe extremely variable lapses of time from the dates of first exposure until the dates of attack. But it is very unlikely that we speak accurately when we term these variable lapses of time periods of incubation. The word incubation, if applied to the behaviour of the infection when once lodged in the system, should be restricted in meaning to that period of quiescence or exemption from attack, intervening between the reception of

the poison and any symptomatic manifestations of its presence. If a given number of unprotected persons, after exposure to infected localities, leave them and afterwards suffer attacks of yellow fever, we cannot affirm that the dates of these attacks illustrate the period of incubation of its infection, unless they have been made to change their clothing, undergo cleansing of their persons and to divest themselves of all possible forms of fomites.

If, again, a given number of unprotected persons enter an infected locality and remain in it until attacked, the great variability in the period of exposure before falling sick may be due to the constitutional conditions which either eliminate or tolerate the infection. In a word, the postponement of attacks during constant exposure cannot be interpreted as representing the actual periods of that silent development of the poison in the blood which occurs just prior to open attacks of the disease. It is certainly true that the suddenness of the exposure of unprotected persons to yellow fever poison, together with the intensity of its concentration, has great influence in shortening the periods of incubation, as well as increasing the violence of the cases. In this respect yellow fever infection is like the natural and chemical poisons. By treating persons with small doses of arsenic and gradually increasing the quantities given, they shortly come to tolerate amounts which would have proved quickly fatal if administered before tolerance had been acquired.

I am of opinion that the actual incubation of yellow fever infection is in the large majority of cases less than five days, and that it seldom if ever exceeds ten days. The shortest well authenticated incubation in 1878 was about twenty hours. A large number of attacks took place on the third day after exposure, or more exactly, from forty-eight to eighty hours afterwards. The table of dates of arrivals and attacks of unacclimated physicians in Memphis during the epidemics is by Dr. R. W. Mitchell, and will prove of interest. (See note "2.")

To conclude this chapter, the following propositions seem to be justified by the present state of science:

1st. Yellow fever is the sum of changes and effects produced

in the human economy from the presence of a specific poison.

2nd. The specific nature of the poison is shown by (*a*) the inconvertibility of yellow fever and other diseases; by (*b*) the certain recognition of the disease through clinical histories found in its earliest records and down to the present time; by (*c*) the fact that it is portable from one place to another, and produces identically the same disease in places to which it has been carried.

3rd. The opinion that the poison is in its essential nature an organism finds support in the following facts: (*a*) it produces its kind in successive crops; (*b*) certain climatic conditions, as a suitable warmth and moisture, favor its development, while this is arrested by extreme heat or extreme cold.

4th. It is reproduced chiefly, if not wholly, within the body, but undergoes some change after its escape from the body which increases its toxic qualities. It possesses ponderability and some certain unknown quality which causes it to adhere to solid surfaces. On account of these characteristics of the "germ," the disease is seldom communicated from the persons of the sick, but it is generally contracted by visiting infected localities or by contact with infected things.

5th. While yellow fever poison is an air-infecting agent, this quality is confined to limited areas. It is, therefore, wholly dependent upon human travel and commerce for propagation to any considerable distance from an infected place.

6th. The atmosphere appears to be the medium of its introduction to the system, as no instance is on record showing it to have been received with food or drink.

7th. Clinically considered, yellow fever is a self-limited disease of one paroxysm, and the blood deperdition due to the primary action of the poison is accomplished during this paroxysm.

8th. As the disease cannot be intercepted, or jugulated, or cured by antidotal or eliminative treatment, its therapeusis is limited to those medicines which are useful in controlling symptoms.

9th. The only safe prophylaxis is to keep unprotected persons out of the range of infection, either of localities or things.

(*a*) by a rational system of quarantine, (*b*) by a careful isolation of the sick, (*c*) by cleansing and disinfecting all localities and fomites.

NOTE 1.—Chapter 1, Part 2.—The field work of this report was completed in 1878, under the direction of Dr. John M. Woodworth, Surgeon General of the Marine Hospital Service.

The commission consisted of the writer as chairman; Dr. Jerome Cochran of Mobile; Dr. E. Lloyd Howard of Baltimore, and Mr. T. S. Hardee of New Orleans, Engineer. Of the persons named as being connected with this work, Dr. Cochran and the writer are the only survivors.

The report should have been published during the winter of 1879 and '80, but Congress failed to vote a sufficient sum to secure this end.

If it should ever be published, it is designed to comprise an introductory chapter giving a brief history of the inception of the commission, its organization and manner of performing its work. This chapter will also contain notices of sources of aid, especially making suitable mention of the names of those persons who generously furnished their money to defray the expenses of the work.

The report proper will consist of two parts—the first—the History of the Epidemic of 1878: the second being made up of such remarks as each of the surviving members of the commission may consider best calculated to afford the people of the United States that character of information which will prove useful in enabling them to avoid future visitations of yellow fever. To meet these purposes effort has been made to handle the subjects of the report, in such a style as to adapt it to the requirements of the non-professional public, rather than to attempt to elaborate scientific essays. The National Board of Health holds the report in its custody, and has given Dr. Cochran and the writer of these chapters permission to copy and publish certain parts of it.

NOTE 2—(see next page.)

List of Unacclimated Volunteer Physicians in Memphis, during Yellow Fever of 1878.

NAME.	RESIDENCE.	Date of Arrival.	Date of Attack.	Period of Incub'n.	Result.	Remarks.
Armstrong, W J	Memphis	.....	Sept 16..	.....	Died Sept 20	
Bankson, J S	Stevenson, Ala..	Sept 5..	Sept 12	7 days	.. Sept 16	
Bartholomew, O D	Nashville	Sept 2..	Sept 16..	14 ..	.. Oct 8	fr. r'l'se
Bond, T W	Brownsville	Sept 2..	Sept 12..	10 ..	.. Sept 16	
Burcham, Robt	Columbus, O	Sept 5..	Sept 21..	16 ..	.. Sept 25	
Chevis, L A	Savannah, Ga...	Sept 6..	Sept 20..	14 ..	.. Sept 5	
Dawson, G R	Memphis	.....	Sept 14..	.....	.. Sept 2	
Easley, E F	Little Rock	Aug 31..	Sept 20..	21 days	.. Sept 30	
Forbes, J G	Round Rock, Tex	Sept 13..	Sept 20..	7 ..	.. Sept 24	
Force, H F	Hot Springs....	Sept 4..	Sept 19..	15 ..	.. Oct 13	fr. r'l'se
Gorrell, J G O	Fort Wayne, Ind	Sept 7..	Sept 16..	9 ..	.. Sept 20	
Harlan, L B	Hot Springs....	Sept 4..	Sept 11..	7 ..	.. Sept 6	
Hicks, J B	Murfreesboro ...	Sept 8..	Sept 14..	6 ..	.. Sept 17	
Heady, F	Sherman, Tex...	Sept 7..	Sept 21..	14 ..	.. Sept 22	
Hodges, W R	Memphis	.....	Sept 1..	.....	.. Sept 4	
Keating, M T	New York.....	Sept 21..	Sept 14..	23 days	.. Sept 17	
Meade, W C	Hopefield, Ark..	Aug 30..	Sept 1..	2 ..	.. Sept 7	
Menees, T W	Nashville, Tenn.	Sept 8..	Sept 12..	4 ..	.. Sept 16	
Manning, T D	Austin, Texas...	Sept 5..	Sept 18..	13 ..	Sept 20	
Montgomery, B R	Chattanooga	Sept 12..	Sept 13..	1 ..	.. Oct 9	fr. r'l'se
Lowry, W R	Memphis	.....	.....	.....	.....	
McGregor, T H	Tipton Co., Tenn	Sept 2..	Sept 10..	5 days	.. Sept 15	
McKim, J W	St. Louis.....	Sept 2..	Sept 5..	3 ..	.. Sept 9	
Nugent, P C	St. Louis.....	Sept 2..	Sept 10..	8 ..	.. Sept 14	
Pearce, H M	Cincinnati, O....	Sept'r 5..	Sept 14..	9 days	Died Sept 18	
Renner, J G	St Louis	Sept'r 2..	Sept 10..	8 ..	.. Sept 14	
Robins, W H	Memphis.....	.....	.....	.....	.....	
Sample, G F	Austin, Miss....	Aug 18..	Aug 30..	12 days	Died Sept 6	
St. Clair, T C	Vaiden, Miss....	Sept 27..	Oct'r 3..	6 ..	.. Oct 7	
Tate, R H	Cincinnati, O....	Sept 3....	Sept 16..	13 ..	.. Sept 21	
Tuerke, P	Cincinnati, O....	Sept 1....	Sept 26..	25 ..	.. Sept 29	
Williams, R B	Woodburn, Ky ..	Aug 29..	Sept 1...	2 ..	.. Sept 7	
White, J H	Atlanta, Ga.....	Sept 13..	Sept 26..	13 ..	.. Sept 30	
Abercrombie, J B	Memphis	.....	Aug 30..	.....	Recovered..	
Brown, S H	Memphis	.....	.....	.....		
Besancny, W F	.....	.....	.....	.....		
Cavanagh, W C	Memphis	.....	Sept 25..	.....	Recovered..	
Childs, L B	Louisville	Sept 11..	Sept 17..	6 days	..	
Collins, S H	Cincinnati, O....	Aug 31..	Sept 11..	11 ..	..	
Dale, J R	Little Rock	Sept 25..	Sept 28..	13 ..	..	
Green, H J	Shelby, Co.....	Sept 2...	Sept 11..	9 ..	..	
Green, S P	Memphis	.....	.....	.....		
Hunter, R R	Kansas City.....	Sept 2....	Sept 10..	8 ..	Recovered..	
Kenhue, Aug	Dayton, O.....	Sept 3....	Sept 17..	14 ..		
Loury, H P	Cincinnati, O....	Sept 6....	Sept 15..	9 ..		
McCormick, S H	Saline City, Ind.	Aug 31..	Sept 7...	7 ..		
Luppo, J	Los Angelos, Cal.	Sept 14..	Sept 19..	5 ..	Recovered..	
Orr, J G	Cincinnati, O....	Sept 8....	Sept 22..	14 ..	..	
Overall, G W	Murfreesboro....	Sept 2....	.....	.....		
Pritchard, Maurice	Virginia City, Mo	Sept 13..	Oct'r 4...	21 days	Recovered..	
Westbrook, J L	Neuborn, Texas.	Sept 6....	Sept 13..	7 ..	..	
White, E P	Detroit, Mich ...	Sept 20..	Oct'r 1...	10 ..	..	
Woolfolk, R F	Orange co., Va..	Sept 26..	Oct'r 9...	14 ..	..	
Winn, N B	Memphis	.....	Aug 27..	.....	..	

Total number sick, 54.

Total number died, 33, or.... 61.11 ℘ cent.
Total number recovered, 20, or 37.04 ..
Total number escaped, 1, or.. 1.85 ..

Total.....100.00 ..

Shortest period of incubation..... 1 day.
Longest period of incubation.....25 days.
Average period of incubation.....10 ..

Only one physician (Dr. Keating, of New York,) who reported to me as previously having had the fever, died during the epidemic. No other was sick.

Only one unacclimated physician (Dr. G. W. Overall, of Murfreesboro, Tenn.,) went through without contracting the fever.

PART I, CHAPTER 2.

DIAGNOSIS.

The early and certain recognition of yellow fever cases is of such paramount importance to the exercise of proper measures for its prevention, that it is considered proper to introduce a chapter on "Diagnosis."

Physicians unacquainted with the disease, frequently err in supposing that its presence is indicated by some one distinctive and unmistakable symptom. There is no one symptom pathognomonic of yellow fever, in any stage or type of the disease. The diagnosis can only be positively asserted after grouping the symptoms, and estimating their value by a synthetic method of study.

The clinical division of yellow fever into two stages is in accord with the natural history of cases. The first stage is the "paroxysm," which includes the initiatory chill, or chilliness, if present and notable, and the subsequent fever. This stage may complete its course within twelve hours, or it may occupy a week. The fever usually persists for more than forty-eight hours.

The second stage is generally known as the "stage of calm," or "calm stage." At the commencement of this stage, the fever, pain, and all violent symptomatic manifestations undergo a remarkable and most deceptive mitigation. Hence the term, "stage of calm." Even the most experienced physician cannot judge of the future of the case, basing his prognosis upon symptoms present. It is, however, true that yellow fever poison effects its harmful changes in the system during the paroxysm.

The calm stage is an effort of the economy in the direction of restitution of the poisoned blood and generally damaged chemistry of the system. Even when the issue is most favorable, the return to health and strength is tedious and uncertain andconvalescence is easily interrupted by slight and unforeseen circumstances.

During the first stage, importance should be attached to the

suddenness of the attack, and the absence of definite precursory symptoms. The chill, or cold stage inaugurating the attack, as a general rule, is less violent than those attending paroxysms of ague. The frontal headache and pain in lumbar region are generally severe and are very seldom absent. The appearance of the tongue is indifferent as a symptom. It is, however, generally moist, whitened in the middle and some times showing increased red coloring of its edges. The countenance becomes suffused very early, if the attack is of even average severity, and the eyes injected and glistening. Pressure upon the suffused surface produces white markings, quickly effaced if the attack is not unusually grave.

Perspiration may be considered a clinical event which belongs to the natural history of yellow fever, being easily induced when it does not exist without measures to promote it. It differs from the perspirations of malarial attacks in not being in any sense of the word critical in relieving the fever, profuse perspiration often co-existing with a high range of temperature. Appetite is abolished. Thirst is usually strongly marked. The bowels are generally inactive, but yet sufficiently impressible to cathartic medicines. Sickness of stomach is seldom prominent in the first stage, unless provoked by the quantity or quality of ingesta. But it is often an early event in a case of yellow fever, that the stomach shows that intolerance of food and drink, which is nearly always a prominent symptom later in the progress of the disease. The patient complains of the weight of the hand upon the epigastrium, and one may truthfully say that by or before the close of the first stage, the stomach begins its almost universal petition of "*noli me tangere*," and persists in it throughout the case.

The urine in a great majority of cases is natural in amount and in absence of albumen during the first day. In very violent attacks albumen appears within the first twenty-four hours.

Delirium during the first stage is not uncommonly observed, and if present, is ordinarily due to heated blood, unless the case be one of that congestive type in which reaction from the initiatory cold stage has not occurred. In such cases muttering

delirium and coma occur early, and death may ensue within less than twenty-four hours from first attack.

The altered appearance of the countenance in yellow fever is a striking symptom in a majority of patients. But one has only to refer to Dr. LaRoche's account of this symptom, and read the long list of adjectives employed to define the variety of alterations of countenance observed, in order to determine how little value is to be accorded to any one expression of the face as characteristic of the disease. When however, it occurs to the inexperienced physician that he is called to a case of an unknown form of fever, with expressions of face not before observed, the fact may be looked upon as suspicious until further developments occur.

The temperature and pulse of a suspected yellow fever case should be carefully observed. They afford important aids to a correct diagnosis. According to Dr. Faget, of New Orleans, there is a law which governs the march of temperature and the pulse in yellow fever peculiar to that disease. This consists in an early and very marked disturbance of the parallelism of these lines as usually found in other forms of fever. In typical, or in other words, regular forms of yellow fever, the divergence of the lines recording pulse and temperature are helps to diagnosis.

Yellow fever is seldom marked by a rapid pulse except in those conditions probably due to accumulations of secondary poisons in the blood, where high fever and violent symptoms of disturbance of nerve function occur late in the progress of the case.

I consider it a valuable addition to this report to include a sufficient number of charts of temperature to serve as guides to diagnosis.

The fevers which most often complicate the diagnosis of yellow fever both by synchronous concurrence of attacks and analogy of early symptoms, are the malarial. It will be observed that the charts of temperature of uncomplicated yellow fever cases, exhibit nothing like diurnal periodicity. I may still further say that in those instances in which yellow fever attacks persons sick with malarial fever as an intercurrent

affection, it very soon rules the pathology so completely that the periodic rise and fall of temperature which are peculiar to malaria cease to appear. When the yellow fever attack has run its course, malaria often again asserts its supremacy and governs the temperature curves.

The march of pulse and temperature in the second stage is exhibited in the accompanying charts. The yellow coloration of the sclerotica and skin generally bears a direct relation in intensity to the degree of passive congestion of the capillaries of the skin in the first stage. This is also generally true in regard to the presence and amount of albumen in the urine. The correllation of these symptoms is not only diagnostic in the second stage, but if strongly marked, is a measure of the gravity of the case. The tongue in the second stage is pointed and red, frequently smeared with blood. The gums are turgid, often spongy and bleeding. The stomach becomes more irritable and hiccough with gaseous eructations, and complaint of intense burning pain in the stomach are very common. Hiccough is frequently a precursor to black vomit.

The bowels are liable to be distended by gaseous accumulations. Occasionally a diarrhœa occurs with dark and very offensive stools. Labial herpes is common and cutaneous eruptions occasionally appear. The pulse is always weaker in the second stage, being often gaseous and obliterated by slight pressure. Under circumstances favorable to the patient, it is usually slow. Sometimes it falls in frequency to forty beats per minute. Attempts at physical exertion or even emotional excitement will often very quickly increase the beats to more than a hundred per minute. Accumulations of secondary poisons in the blood, especially if the urinary secretion is scanty or suppressed, will produce a similar result.

Connected with these symptoms convulsions are apt to occur, when death soon takes place. In some instances there is a remarkable rise of temperature in the closing hours of life, while in other cases, the moribund symptoms are those of collapse.

Muscular strength is always greatly impaired. Indeed, this,

and the marked nervous exhaustion form strongly characteristic symptoms.

Bleeding may occur from a great variety of surfaces. Yellow fever poison establishes the hemorrhagic diathesis in violent attacks very early and certainly. This exhibits itself in the second stage, and is more or less strongly marked, accordingly as nutrition of the solids, alterations of the blood, and changes in the physical force which regulates the circulation, have suffered greater or less damage.

POST MORTEM EXAMINATIONS.

Very few autopsies were reported to me. Perhaps but few were made, as the hurry and constant occupation of the medical attendants gave them but little opportunity for this character of investigation. Dr. Charles Faget makes the following report: "I made about 20 post mortem examinations, of which 15 were yellow fever—4 negroes, 3 mulattoes, 8 whites. I took charge of Vicksburg Hospital August 26th. On the following day I made 5 post mortem examinations—2 negroes, 1 mulatto, 2 whites. All had yellow conjunctivas. One of the negroes had black vomit in his stomach. He was the only one who had had black vomit before death. He had also large yellow spots on the liver, gradually shading into a normal color. The other negro had a large dark liver—slate color; other organs normal. The mulatto had yellow spots on the liver. The two whites, as also all the whites whose bodies I examined subsequently, had all the characteristic lesions of yellow fever; most of them had a complete fatty degeneration of the liver, the organ being altogether yellow. The gall bladder was generally empty, the kidneys pale and yellow, and the heart, when cut through, oozing blood through an oily fluid.

All those who died under my observation died with *suppression of urine.* A negro and a mulatto had all the lesions of yellow fever, but *no black vomit* in their stomachs. Finally, I made also the autopsy of a negro who died on a cart, on his way to the hospital from *the country* twenty miles distant. He had the lesion of *malarial fever, large, dark liver, slate color,* and a *very large spleen.*

1. The capability to distinguish yellow fever from any other essential fever must be rested upon the observation of some mode or modes of action of its poison in the human system which are notably different from the modes of action of the morbific causes of other zymotic diseases.

2. In cases where the action of the poison is energetic and uncomplicated, the diagnosis is not difficult, if only some circumstance or symptom connected with the case shall lead the physician to suspect the disease.

3. But in cases which are so mild as to produce symptomatic phenomena indifferent in character, or in the most violent cases if complicated by some other disease, even the most skillful physician must occasionally fail to assert a correct and early diagnosis.

4. The prime distinguishing features of the modes of action of yellow fever poison are—First, the disturbances of nerve function mentioned in this chapter, as—(*a*) Early and almost constant disturbance of vaso-motor functions and sluggish capillary circulation; (*b*) special neuralgias; (*c*) interference with production of nerve force and consequent ataxia. Second, quickly induced changes in the quality of the blood, probably due to (*a*) some primary injurious action of the poison, and to (*b*) its delay in the capillary vascular system and interference with the physiological exchange of gases; (*c*) the engenderment of secondary blood poisons.

5. Hemorrhagic tendency is general in cases of yellow fever and occurs in persons who were in robust health at the moment of attack. It is seldom ever general in malarial fevers, and still more seldom in its occurrence in primary attacks. In other words, the malarial poison seems to be incapable of producing a general hemorrhagic tendency except through those changes of nutrition due to chronic toxemia.

Part II, Chapter 3.

PREVENTION.

In regard to the prevention of attacks, or of the spread of yellow fever, the greatest possible variety of opinions and

practices prevailed in the different places reached by the epidemic of 1878. Some of these were based upon a more or less intelligent appreciation of those attributes of yellow fever contagion, which govern its mode of diffusion. Others were the outgrowth of the most absurd dogmatism.

In one place visited, I found that some persons had adopted the Hunterian doctrine, that two different poisons could not co-exist in the same system, and under this belief, had intentionally contracted venereal diseases as a prophylactic measure.

Many other theories of prevention were reported to the commission; some of them were grossly superstitious; for superstition is a twin attendant upon fear. Again, some of the suggestions for prevention were as impracticable as they were unfounded upon either science or experiment. One rather bright writer suggested that a day and hour be appointed for burning sulphur in every city and town in the infected districts of the United States. Others thought that the concussions of the atmosphere produced by exploding gunpowder would stop the epidemic. Perhaps chemical effects upon the atmosphere were included with these physical commotions.

It is true, however, that the greatest majority of people believed that non-intercourse was the surest means of prevention. Their own observations taught them that the disease hugged lines of railroad and other channels of human traffic and travel. In many instances also, they witnessed outbreaks in places after the arrival of persons, or goods from infected localities. These lessons were so deeply impressed upon a large number of persons that they were ready to adopt the declaration which an old farmer in Mississippi made to me during my visits of inspection in that State. He pathetically exclaimed, "This complaint took away my first wife and children in 1853, I am now away out in the country, but I am afraid for you to come into my house, for fear you'll bring it into my family, I don't believe it goes anywhere except you tote it." Under circumstances like these, great allowance should be made for the fact that non-intercourse was often enforced by armed sentinels, who yielded nothing to entreaties, although urged in the name of sick and suffering humanity and

plead with the tender emotion of hearts wrung by anguish and sympathy with relatives, perhaps, dying for want of attention.

Measures for the prevention of yellow fever may be classed accordingly as they are employed for the accomplishment of one or the other, of three different purposes. First: Measures to avoid contact with yellow fever infection by keeping outside of its area of prevalence. "a." To fence it out so that it shall not obtain access to a community; i. e. ordinary quarantine. Should this be not entirely successful, "b." to fence the infection in, and confine it to those localities where cases have occurred;—isolation.

Second. Measures designed either to destroy the infection, or to rid those carriers which are capable of conveying it, of its presence; so that they may no longer prove pestilence bearers.

Third. Measures designed to fortify the system, so as to enable it to resist the toxic influence of yellow fever infection, or else; measures which interfere with the multiplication of the infection when received into the system so that the noxious influence of the poison shall be counteracted in the currents of circulation i. e.—prophylaxis.

First. Measures to avoid the yellow fever infection by keeping outside of its area of prevalence. "a." To fence it out, so that it shat not obtain access to a community; i. e. ordinary quarantine. "b." Should this be not entirely successful, to fence the infection in, and confine it to those localities where cases have occurred, i. e. isolation.

In considering those measures which are included in the first classification, it must be admitted that for the practical prevention of yellow fever by quarantine, the following propositions must be true:

1. It must be a disease whose contagium is transportable through human agency, and it must be also dispossessed of inherent power of locomotion; for, if a morbific agent so minute as to elude all our senses, is capable of self-transportation through indefinite areas of extension, it is necessarily impossible of exclusion by quarantine.

2. If the infection is transportable by means of extraneous carriers, either animal, or mechanical, it must be at the same

time impossible of conveyance for great distances through the atmosphere; otherwise no quarantine restrictions can arrest its travel and spread.

3. Whether these propositions be true or not, it is absolutely essential to the prevention of a disease by quarantine, that it should not possess the property of *de novo* production in different localities; for that which is capable of a new creation, cannot be excluded by quarantine from those places at all events, where a new creation is possible.

4. It must be true that yellow fever is not of two, or more varieties; one a foreign variety, or growth, which may be excluded by quarantine; another, a home variety, or growth, which being already indigenous, or domiciled, cannot be gotten rid of by quarantines of non-intercourse, or detention.

There are no facts connected with the Epidemic of 1878, whose single or combined value, is sufficient to determine the contrary of these propositions, whether affirmatively or negatively stated.

I do not think it necessary to adduce facts or arguments, for the purpose of proving that the yellow fever poison is not a mere variety, or intensification of the swamp, or ague poison. Such events as those connected with the origin and spread of the epidemic of yellow fever in 1878, have never been observed in epidemics of the malarial fevers.

If then the foregoing propositions be true, one other naturally flows from them, and is equally indisputable. This is, that quarantine measures designed to prevent the spread of yellow fever by intercepting the carriers of its infection, are successful in precise degree, with their efficiency in excluding, or purging all vehicles of transportation of yellow fever germs.

Wherever in 1878, absolute non-intercourse was established between infected localities, and those not infected; the latter remained free from invasion. In some instances this fact was illustrated when the quarantined localities were very contiguous to those which were infected.

Isolation of the first cases was not as generally practiced as it should have been. It was attempted in Yazoo City. In Milan the first case was carried to a temporary hospital

without the town limits. In both these places the spread of the disease was very small, and none whatever could be ascribed to the first case at Milan. Those cases which succeeded the first were certainly due to infection introduced by railroad cars remaining on a siding.

The modes of practicing isolation, may be classed into three:

First: to prevent all unnecessary communication with the sick; and also contact with the dead. Second: to remove the sick to places where exposure of persons immediately around the houses in which attacks occur, shall be prevented. Third: removal of the well from the neighborhood of infected places to localities not infected.

The last mentioned plan was sometimes adopted when towns were infected throughout. Camps were established at distances from the towns and occupied by large numbers of people. Experience shows that all these various methods are to be commended, and the immediate circumstances of each case, be suffered to govern the choice of that to be selected and put in practice.

Second. Measures designed either to destroy the infection, or to rid those carriers which are capable of conveying it, of its presence, so that they may no longer prove pestilence breeders.

The natural disinfectants of yellow fever poison appear to be cold and a free exposure to air. A degree of cold sufficient to freeze water, instantly arrests the toxic evolution of yellow fever poison, and deprives it of all infectious properties. Unprotected persons may contract yellow fever at very low degrees of temperature by being brought in contact with germs put away in some close warm place. Attacks acquired under these circumstances present all the symptomatic phenomena of yellow fever when communicated by infected localities during the heat of summer. It is to be concluded from this fact that a low temperature does not influence the changes the poison undergoes in the human economy, but only its evolution and maturation external to the body.

After a freeze has pervaded an infected locality, it loses this quality of infectiousness with absolute certainty and com-

pletely. Further than this, there are no conclusive facts which show that yellow fever infection when once destroyed by cold, is ever revivified so as again to acquire its infectious character. Its destruction appears to be final; in this respect showing a marked contrast with the ague poison.

I know of no reason to support a belief that artificial cold would not prove an equally efficient agent to destroy yellow fever infection, provided the degrees of temperature, range of action and duration of action were the same. I am not able to speak authoritatively in regard to its utility as a disinfectant in the compartments of ships or rooms of houses. The experiment has never been tried in an efficient manner. But it is desirable to the ends of sanitary science that the full benefits of artificial cold as a disinfectant shall be developed. Its range of action may be extended to rooms capable of being closely shut, and it is certainly likely to prove an important agent in ridding fomites of their infection.

Atmospheric air is a disinfectant of yellow fever independent of its thermometrical readings. In my opinion its good effects are brought about by promoting those changes which terminate the period of virulence if not the life of the infection, rather than by effecting its dilution. However correct this explanation may be, the disinfecting powers of atmospheric air are so slowly manifested that we can only estimate them by contrasting the certain death of yellow fever germs in the open air, with their long preservation when hermetically enclosed.

Yellow fever patients should have their rooms well ventilated, not only for their own benefit, but for the protection of the attendants. But attempts to disinfect clothing, bedding or other things by exposing them in the open air often result in increasing the spread of the disease.

Artificial heat is a destroyer of yellow fever poison; but the same objections rest against it that I have mentioned as applicable to artificial cold. It is not possible to extend its range of action beyond close rooms and such fomites as may be conveniently subjected to it in ovens or closets. For this latter purpose it is more readily available and equally efficient as artificial cold.

Burning infected things certainly puts an end to their power to work harm. But the manner in which this is sometimes done is productive of more injury than good. If slow fires are trusted to consume infected material, the smoke and currents of air emanating from them convey the infection to the inhabitants of neighboring houses. The articles to be burned should be covered with some inflammable substance and thrown upon hot fires.

"Chemical disinfectants" proved signal failures in the epidemic of 1878. In Port Gibson carbolic acid was used to such an extent that the foliage of trees along the side walks was wilted as by the heat of fires.

The zealous optimist may with much good reason argue that the Creator of the subtle poison of yellow fever, has placed somewhere within man's reach its special destroyer. But the fact must be lamented that it has not yet been discovered in any agent whose field of usefulness when artificially employed, is not narrowed to an oven, a closet, a room, or, at most, the hold of a ship. There are, however, some reasons for believing that the vapor of burning sulphur has a certain degree of efficacy as a special germicide in even large apartments. This is probably equally true of chlorine.

In my opinion, far greater importance should be attached to those measures of disinfection which seek to rid persons and things of the infectious principle by ordinary processes of cleansing and purification applied to the suspected carriers.

If for any reasons these cannot be practiced, then by removing all material which might serve as fomites, and which cannot be subjected to the processes instituted.

It is generally understood that the person of an individual not suffering from an attack of yellow fever at the time of passing a quarantine station can be so thoroughly depurated that if uninfected clothing be provided, he may be suffered to pass without the least present danger. It may prove, however, that he is in the incubative stage of yellow fever, and when the attack is once inaugurated, there is no doubt of his capability of creating a new focus of infection. The point then

to be guarded is, that persons liable to be attacked shall be detained until the incubative period has been safely passed.

To what extent these processes of cleansing and purification and general renovating changes can be usefully applied to infected localities is somewhat difficult to estimate. My own observations lead me to believe that a very great amount of good is to be obtained from them.

It certainly appeared highly probable that the energetic measures of the State Board of Louisiana, acting in co-operation with the National Board of Health, prevented an epidemic in New Orleans in 1879, Dr. W. G. Austin being its temporary president. The principal features of this work consisted in isolation of cases and thorough and repeated cleansingand renovation of infected places.

Third. Measures designed to fortify the system so as to enable it to resist the toxic influence of yellow fever infection, or else measures which interfere with the multiplication of the infection when received into the system, so that the noxious influence of the poison shall be counteracted in the currents of of the circulation—i. e., personal prophylaxis.

Very little space need be devoted to the study of personal prophylaxis. Some persons attributed their exemption from attacks to small doses of quinine; others to the use of chalybeate water; others again to the sulphites, or sulpho-carbolates.*

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* The following communication gives some instances in which sulphurous acid was used with supposed success as a prophylactic:

NEW ORLEANS, October 9th, 1878.

MR. A. BURTHE:

Dear Sir—The facts in the case of Mr. Ludwig's use of the preventive against yellow fever are as follows:

Mr. Ludwig and wife are both natives of Germany, and arrived in this city seven years ago. They have four children from one to six years old. When the epidemic broke out in our midst Mr. Ludwig was greatly alarmed about the health of his family, and noticing in the New Orleans Picayune an alleged preventive of yellow fever, he determined to give it a trial: and, according to directions, he began by giving each of his children 15 drops of sulphurous acid in a tumbler of water after meals, and his wife 20 drops in the same quantity of water, and kept it up to the present time. One of his children, a little girl, not relishing the very slight acidulous flavor of the "preventive," refused to take it, and Mr. L., not

One of the most rapidly fatal attacks which occured under my observation, was in the person of a young gentleman who had been taking large and repeated doses of charcoal as a prophylactic.

There is no proof that the zymotic processes of yellow fever germs can be arrested after the infection of the system, either by catalysis or sudden elimination.

It is, however, proper to say that the moral effects obtained by administering some harmless drug, are often perceptible in diminishing fright. Another advantage derived from such a procedure is that the persons who practice these measures, will also take better care of themselves in other respects, and will also make prompter reports upon the occurrence of attacks.

Small doses of quinine have been most commonly resorted to for prophylaxis. No one will deny a probable value in subtracting the malarial pathology from the system in the case of attack. If it be true that malarial toxæmia invites yellow fever attacks, repeated small doses of quinine may aid in diminishing this tendency. Its effects as a nerve tonic may also be included, but even after summing all these inferentially good offices, experience furnishes no actual proofs of its efficacy as a prophylactic.

But however we may estimate the value of drugs, or other

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wishing to force the child, allowed her to have her own way in the matter. This child was taken with yellow fever some two weeks since, but not one of the rest of the family has had it, or any of the symptoms. His neighbor, who has also a family, lost one of his children by yellow fever, and another one was taken sick. Mr. L. induced him to administer the sulphurous acid to the rest of the family, and not one of them was attacked. The same thing occurred when another of his neighbor's children took sick. Now there is not a single house on the side of the street (Dryades street) on which Mr. Ludwig resides that has not had from one to five cases of yellow fever in it, as I know to my certain knowledge, for I can enumerate and name every case, from Euterpe street to the Dryades Market, and several deaths have occurred there among the children and adults in that vicinity. Ludwig is writing up a statement for the German Gazette about it, and if you wish I will either make you a translation or procure you a copy. His idea is to ascertain, if possible, if any one else has used the preventive, and if so, with what success. Yours, etc.,

LINDAUER.

agents used as prophylactics, whether introduced into the stomach, or externally applied, no one can deny that conformity with the rules of good hygienic care of the systems of those exposed to yellow fever, has a most important influence in warding off attacks.

It is not at all necessary to recapitulate these rules. One apothegm covers the whole category of instructions. This is, for each individual to avoid all those causes which his experience, or good sense, teaches him to be likely to derange his health, and thus lower his powers of resistance to epidemic influences.

Before closing this chapter it must be empathically declared, that, unless one hitherto unmentioned measure be severely enforced, all means for preventing the spread of yellow fever will prove abortive.

This measure includes prompt recognition of the existence of a case, or cases, and their immediate candid announcement to all who are endangered by their occurrence.

One of the greatest obstacles to an early and candid declaration of yellow fever, rests upon disagreements as to diagnosis. Some times these differences of opinion are honestly entertained, sometimes they are merely held as pleas of concealment.

While the preceding chapter is designed to furnish aid in making a diagnosis which shall be unqualified or suited to the requirements of science, the interests of humanity demand that a less rigid standard be agreed upon as a basis of practical sanitary action against the spread of yellow fever.

It is obviously true, that a partisan health officer or board of health, may enter into solemn obligations to report every case of yellow fever which shall occur in the communities under their sanitary supervision, and then excuse failure to perform this duty by disputing the diagnosis made by the practitioners in charge of reported cases. Because some one more or less important symptom is absent from the case, these officials declare that it is not yellow fever, and decline to advertise endangered communities of the presence of a suspected case, or even a case known to be yellow fever by the physician reporting it.

In every considerable seaport of the United States, there is

a sentiment entertained by part of the population which opposes all quarantine. Of course this same sentiment will countenance or excuse efforts to conceal the early cases. In order to surmount these difficulties in the safest and most satisfactory manner, a conventional agreement should be entered into among practitioners of medicine and boards of health that a certain described apparel of symptoms shall be held to indicate yellow fever until a positive diagnosis can be asserted.

The following groups of symptoms have received the careful criticism of the medical societies of New Orleans and of the State Medical Association of Louisiana, and have been adopted as a standard of action for sanitary purposes. The National Board of Health has also authorized its adoption by sanitary inspectors in its service.

For sanitary purposes the following groups of symptoms shall be considered to indicate yellow fever:

Group first.—A person after (*a*) a sudden attack has (*b*) a fever of one paroxysm, attended with (*c*) marked congestion or blood stasis of capillaries of the surface, conjunctivæ, and gums, with (*d*) a history of probable exposure to infection and (*e*) no history of a previous attack of yellow fever.

Group second.—A person after (*a*) a sudden attack has (*b*) a fever of one paroxysm, followed by (*c*) unusual prostration, (*d*) albuminous urine, (*e*) yellowness of conjunctivæ or skin, and having (*f*) no positively authenticated history of a previous attack of yellow fever.

Group third.—A person has (*a*) a fever of one paroxysm, (*b*) albuminous urine, (*c*) black vomit, (*d*) suppression of urine, or (*e*) general hemorrhagic tendency, under (*h*) circumstances where exposure to infection is a possibility.

1. *Suspicious cases of yellow fever.*—For sanitary purposes the following symptoms associated with a fever of one paroxysm, in a patient who has apparently been exposed to infection and has never had yellow fever, shall be held to justify (if occurring between May 1 and November 1*) in either of the six following cases a suspicion of this disease, viz:

First. Suddenness of attack, either with violent pain in

*Adopted specially for New Orleans.

back and head, injected eyes and face, or with marked congestion of the superficial capillaries.

Second. Want of that correlation between pulse and temperature usual to other forms of fever.

Third. Albuminous urine.

Fourth. Black vomit.

Fifth. General hemorrhagic tendency.

Sixth. Yellowness of skin.

The following cases shall also be deemed suspicious:

Seventh. Any cases respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever.

Eighth. Any case respecting which efforts are made to conceal its existence, full history, and true nature, in violation of section 28, city ordinances of May 18, 1870, and section 22, city ordinances, June 24, 1879.*

In the event of the death of a suspicious case a post-mortem examination should be made when practicable. Both before and after death yellow fever is specially and pre-eminently characterized by the fact that it is par excellence a hemorrhagic fever, marked by capillary congestion and its sequela; hence post-mortem evidences of a general hemorrhagic tendency in internal organs, especially in the digestive in preference to the urinary tract, shall be held to confirm the suspicion.

This chapter may be properly concluded by the following propositions:

1st. Yellow fever is a preventible disease.

2d. Absolute non-intercourse is absolutely preventive of the spread of the disease.

3d. Absolute cessation of all inter-communication inflicts heavy losses upon commerce, and causes great inconvenience and often much suffering to individuals.

4th. Quarantines of non-intercourse are looked upon as unreasonable and barbarous, and provoke attempts, often successful, at violation, or evasion.

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*Adopted specially for New Orleans.

5th. It is therefore true that the most efficient methods of preventing the spread of yellow fever, are those reasonable quarantines which consist in detention for a limited period of time for observation and disinfection, which should comprise all properly directed efforts to rid the germ carriers of every possible form of fomites.

6th. Prompt measures to stamp out the infection of first cases in the event that yellow fever appears in a quarantined place.

7th. Placing skilled sanitary inspectors in such positions that they may exercise supervision over carriers of persons or goods from an infected locality to those not infected, the duties of these inspectors being to prevent the transportation of persons or material likely to be infected, until they are subjected to satisfactory measures of disinfection under their own observation. When a dangerous state of infection exists at a town or place the sanitary inspectors should order provision to be made for a transfer of persons or things, from those carriers leaving the place, to others which have not been in the infected locality.*

*The following incident in the history of local quarantine in 1878 illustrates the efficacy of this method. Mr. John Dymond, a sugar planter on the lower Mississippi, found it necessary to procure additional labor in order to remove his crop. This could be obtained only from New Orleans. He, therefore, had temporary cabins constructed on an isolated part of his plantation. The new laborers were sent here to undergo detention of three days with thorough and repeated cleansings of persons and clothing, after which they were allowed as much liberty as the laborers who had remained on the plantation. No case of yellow fever occurred on his estate during the whole period of the epidemic.

Notes Explanatory of Temperature and Pulse Charts.

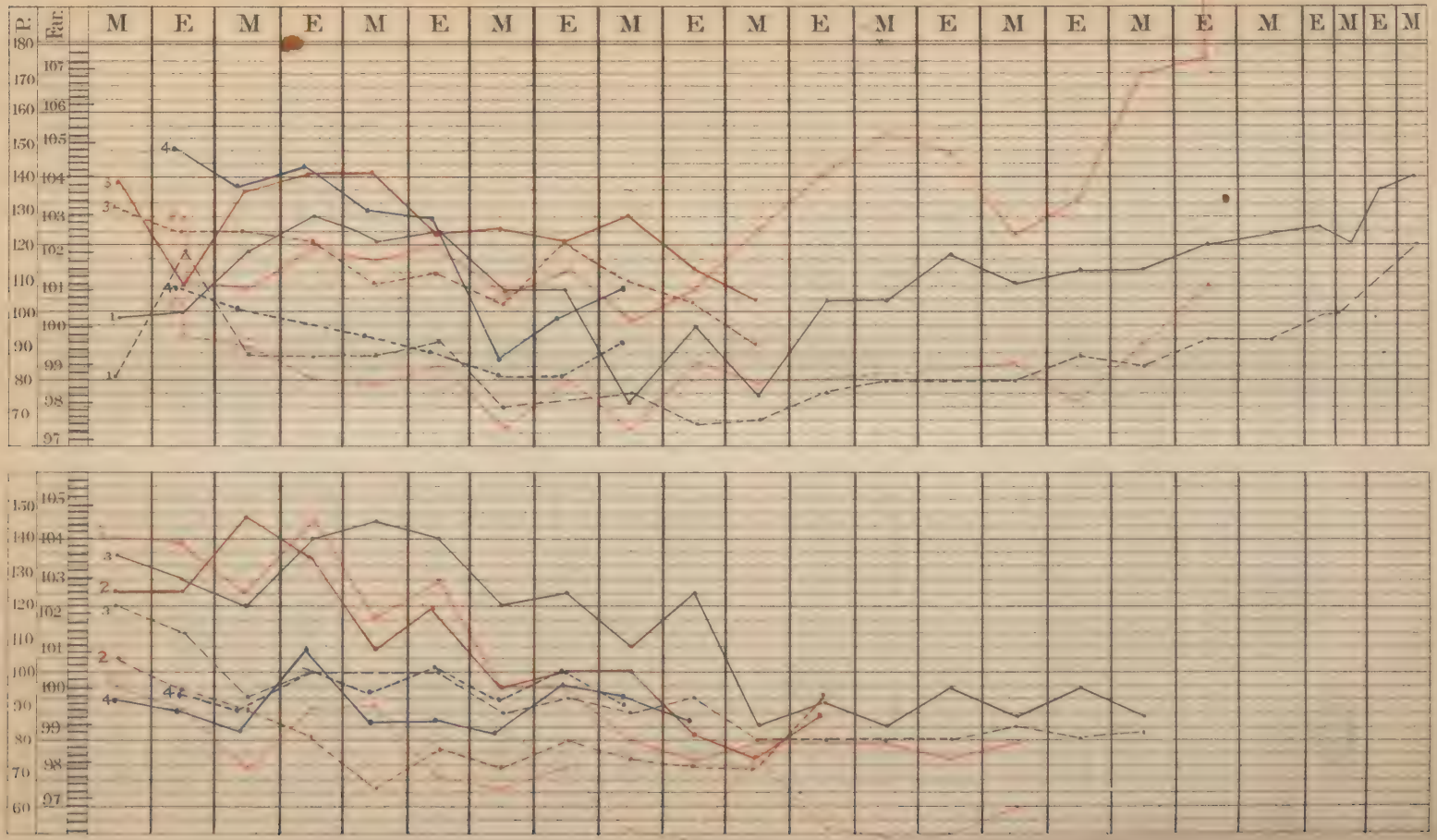
GROUP 1—FATAL CASES.

Case 1.—Healthy white male, 29 years of age; attacked August 8. First observation of temperature and pulse four hours after inauguration of attack; urine became albuminous on the 9th, and continued so until death. No black vomit, but hemorrhage from mouth. Died on 19th.

Case 2.—Healthy white male, aged 38 years. Taken sick on morning of August 14th; first observation of temperature and pulse at 2:15 P. M.; urine albuminous on 15th; on 16th, 17th, 18th and 19th very little albumen. On the 20th temperature increased to 105° and the urine became loaded with albumen and continued so until death, which occurred on the afternoon of August 22d. One hour previous to death the temperature was 110°, and ten minutes after death 111°.

Case 3.—White female, aged 18 years; probably a prostitute. Attacked suddenly in the night, and brought to the hospital early next morning. First record about 8 A. M.; no record of urine; appears to have died from exhaustion and collapse on sixth day of illness.

Case 4.—White male, aged 20 years. Taken suddenly at 12 M. on the 9th of August, admitted to hospital on morning of 10th. First observation of temperature and pulse at 2 P. M. Urine albuminous on 10th and continued so until suppression of secretion


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occurred during the night of the 12th. Black vomit began on the 12th and large quantities were thrown up on 13th. Died August 14th.

GROUP 2—CASES RESULTING IN RECOVERY.

Case 1.—White male, aged 28 years. Admitted July 11th for surgical treatment, attacked night of August 11th. First observation August 12th, 10 A. M. Urine albuminous on 15th.

Case 2.—White female, aged 26 years. First observation on morning of August 22d, twelve hours after attack. Urine albuminous on August 22d, and continued so until the 27th.

Case 3.—White female, aged 28 years. Three mounths pregnant. First observation five hours after attack. Urine albuminous on second, third and fourth days of disease. Dismissed cured on ninth day.

Case 4.—White female, aged 45 years. First observation five hours after attack. Urine slightly albuminous for two days. Case an unusually mild one.

ERRATA.

Page 322—Twelfth line from bottom, read "to be present."

Page 331—Fifth line from top, read "compared with another" instead of "compared in the other."

Page 332—Tenth line, second paragraph, "poisons" instead of "poison."

Page 336—Heading of last paragragh should read "Period of Incubation instead of "Period or Incubation."

Page 348—Fourth paragraph, third line, read "shall" instead of "shat."

Page 322—Second line from bottom, read "is" for "are."

Page 334—Eleventh line from bottom, read "came" for "come."

CURRENT MEDICAL LITERATURE.

CHRONIC CYSTITIS OF TEN YEARS' DURATION, FOLLOWING STRICTURE CURED BY ONE INJECTION OF SOLUTION OF NITRATE OF SILVER.

BY W. E. SHAW, M. D., Cincinnati, O.

I made my first professional visit to Wm. M—— June 23d, 1881. He was a squarely built man, thirty-five years of age, and weighed about 180 pounds. His family history is good, and with the exception of his present trouble, he remembers of being sick but once, with pneumonia, at about the age of fifteen, from which he fully recovered. About ten years ago, he began to complain of a too frequent urination, followed by pain. There was also a progressive decrease in the size and force of the stream. He gradually grew worse, but as he did not "pay much attention to trifles" (to use his own words), he was not forced to consult a physician until about five years ago. The doctor, he says, caused him so much pain by attempting to introduce an instrument into the urethra, that he determined never to consult one again. After this attempted catheterization he lost blood from the urethra in considerable quantities at intervals for two or three months, but subsequently he has passed none; but his urination became more difficult as well as more frequent and followed by more pain.

At the time he consulted me he estimated that he had for months passed urine on an average of forty times in twenty-four hours, each effort being followed by most severe vesical tenemus. After considerable straining, he succeeded in passing his urine in my presence. For about two minutes his suffering was agonizing. Frequently, after most violent efforts, he was unable to pass a drop. On several occasions, during the first half of 1881, he was unable to pass a stream for several days at a time. The intense suffering, loss of sleep, etc., were telling upon his rugged constitution, and he was driven, although much against his inclination, to seek the advice of a physician again. He strongly denied ever having had gonorrhœa, although he has the reputation of having had in former years quite a weakness for wine and women. The urine was ammoniacal and of a milky color. A two-ounce bottle, allowed to stand over night, contained a half inch of cream-colored sediment. This would not clear up on being heated. Under the microscope pus cells were seen in abundance; some large pavement epithelial scales, triple phosphate crystals, bacteria, no tube-casts. Frequently muco-purulent masses would be voided, obstructing for a time the flow of urine.

I attempted to pass a No. 10 steel sound, but it stopped against a very dense stricture in the last portion of the spongy urethra; nor was I able to get even the smallest filiform bougie into the bladder. During the week following, I made four unsuccessful attempts to pass the stricture.

On June 30th, Prof. Ransohoff saw the patient with me. We made a patient and protracted effort, but failed to enter the bladder. The stricture was so tight and the man seemed in such imminent danger that Dr. Ransohoff thought cystotomy would be a necessity, but the weather was so intensely hot that we concluded to delay.

I made five more unsuccessful attempts to pass small rubber bougies through the stricture, and at last succeeded, July 22nd, in getting in a No. 1 (Eng.). At three following visits I was not able to raise the size above No. 3, so I tied it in the urethra, leaving it until the next day. He passed his urine, while it remained, more easily than without it. When the bougie was removed, two and one-half inches of it that occupied the membranous and bulbous portion of the urethra, more resembles a cork-screw than a straight instrument. There were three distinct angles which deviated from the axis of the instrument about one-fifth of an inch.

I continued this method of leaving the largest bougie that I could introduce in the urethra over night for four days, when I was able to pass a Holt instrument and rupture the stricture. A No. 15 steel sound was then easily introduced into the bladder. This was continued at increasing intervals. There was no stone in the bladder, so I gave my patient hope of soon being better. He had been taking medicines a month when the

stricture was ruptured, and for six months following he had what benefit could be derived from materia medica. I gave him morphia and belladonna by stomach, hypodermically and by suppository. Milk diet, abstinence from stimulants; mucilaginous drinks, broom corn seed tea, fluid extract of corn silk, hyoscyamus, alkalies before meals, acids after meals, copaiba, iron, ergot, tannin, alum, whey, buchu, benzoic acid, etc.; tried washing out the bladder. I used these means separately and in different combinations, but my patient only vacillated between bad and worse. Prof. Conner saw him during this time and he will bear me testimony to his great suffering and the obstinacy of the case as well as his remarkable sensitiveness to the introduction of instruments. It was only by continually confronting him with the great danger of a recurrence of the stricture that I was enabled to have him persevere in the occasional use of the sound. I gave the case a great deal of attention and am satisfied that he had all the benefit that could be derived from medicines. I made several attempts to wash out the bladder, both with a soft Jacques catheter and with a double channel silver instrument, but the spasm of the bladder was so great that no good was accomplished.

Mr. Reeves reported in the *London Lancet*, June, 1853, p. 536, several cases of chronic cystitis cured by ℈i to ℥i injection of nitrate of silver. My attention was more particularly directed to this method several years ago by reading a clinical lecture delivered in Charity Hospital, New Orleans, by Prof. T. G. Richardson. The lecture was published in the *Medical News and Library*, June, 1877, p. 58. I have not found the strong injection mentioned in any of the text-books which I have examined. Sir Henry Thompson, Mr. Coulson, Lebant, in Ziemssen's Cyclopedia, advise one-half grain to four ounces of fluid. In the late American edition of Holmes, in obstinate cases this strength may be increased to gr. i to ℥i. I saw in a recently published lecture that Prof. S. W. Gross uses the strong injections. Prof. Richardson lays stress on the absurdity of weak solutions of this salt in chronic cystitis, having determined by experiment that 100 minims of *normal* urine decompose 2.1 grains of the salt. He lays down *three rules*, the observance of which is of paramount importance in the use of this method, and when these rules are strictly followed he uses strong injections of nitrate of silver fearlessly and without the dangerous consequences which many fear. Of course this treatment is not advised where milder measures succeed. His rules are:

1st. "*Be sure you are dealing with a case of genuine chronic cystitis.*"

He especially cautions against the condition not uncommon in hysterical women, sometimes called *irritable bladder*.

2nd. "*Be equally sure that the exciting cause is removed, or, at*

least, so modified as to exert no further influence upon the disease."

3rd. "*Never undertake this method unless the urethra is sufficiently large to admit a* No 9 *or* 10 *catheter.*"

"The only instrument required, besides a catheter of the size mentioned, is an elastic bag capable of holding one or two ounces, with a nozzle to fit the catheter."

His method is to introduce the catheter, wash out the bladder with warm water until it comes away comparatively clear. "*Studiously avoid forcible distension of the organ.*" Use for a first injection a strength of ℈i to ʒi, use warm. Fit the nozzle into the catheter and gently compress the bag until at least an ounce is injected. If there is great pain it is not best to leave the fluid to the bladder longer than three to five seconds, relax the pressure and withdraw the fluid into the bag. Richardson advises that the tenesmus be controlled by morphia or chloroform if very severe. I think it would be advisable to give a hypodermic injection of morphia two to five minutes before injecting the solution. If no improvement takes place within a week, the strength should be increased to ʒss to ʒi and the operation repeated. This failing, as much as ʒi to ℥i may be used.

To recur to my case. In January of this year he was very bad, if possible worse than he had been. The persistsnce of his disease was telling upon his strength as well as upon my patience. Nothing seemed to have the least effect, excepting large doses of morphia. I feared the strong injection of nitrate of silver, and my forbodings were much increased by warnings from professional brethren whose opinions I most highly respected; nevertheless, on January 32nd, 1882 (lacking but one day of seven months of continued treatment without benefit), I determined to try a ℈i to ʒi solution of nitrate of silver. The urine was about the same as when I began treatment. I introduced a No. 10 Jaques catheter, threw in a small quantity of warm water, allowing it to run out. I then threw in an ounce of the solution. It excited great suffering, so I removed the pressure and withdrew it into the bag in five or six seconds. The pains were agonizing. I gave a half-grain of morphia, hypodermically within two minutes. The patient was quiet within fifteen minutes. I left and saw him the following day. Upon my entering his room he greeted me with, "I am nearly well." His acts of urination during the night had been followed by very little pain. Instead of the long accustomed milky fluid in the vessel there was only a just perceptible sediment on the bottom. I saw him next, five days after the operation, and he claimed to be perfectly well. He passed water without a particle of tenesmus. The first time in ten years. Urine normal. Patient discharged with orders to call me if he had any further trouble.

May 10th I called upon him at his work, nearly four months since his cure. He never has to urinate more than once from

9 P. M. to 5 A. M. Frequently sleeps all night without waking to pass water. Has felt no vesical pain since a few hours after the injection, with one exception for a few seconds only while he was traveling on a street car. He was very much alarmed, fearing its return at the next urination, but his fears were groundless. He thinks his health perfect, excepting occasional constipation and a deep soreness in the region of the left kidney. Of this he only complains upon rising to his feet after he has been sitting for some time. If he should arise immediately, he would not feel the pain. I neglected to say when speaking of his symptoms that he had complained of this symptom for two or three years. I examined a specimen of his urine passed two hours after dinner, after it had stood fifteen hours; color normal, acid reaction, specific gravity 1024. The quantity of mucous was somewhat increased, and instead of being suspended had settled to the depth of about one-half inch. There was no sediment except this cloud visible to the eye. A drop of this portion showed under the microscope a large number of the octohedral crystals of oxalate of lime; nothing else visible. Having some curiosity to know Prof. Richardson's present views on the subject, I wrote him and received the following answer:

UNIV. OF LOUISIANA, MEDICAL DEP'T,
New Orleans, May 25th, 1882.

W. E. SHAW, M. D.:

Dear Sir—Yours of the 22d inst., containing a brief account of a case of chronic cystitis cured by a strong solution of nitrate of silver, is received, and I beg leave to return my thanks for the same.

It has now been quite twenty years since I began this plan of treatment, and *in no single case* have I had reason to regret its application. The injection is, of course, very painful in many instances, but as this is of short duration and can easily be controlled by chloroform or morphia, it is a small consideration in view of the remarkable relief which soon succeeds. I have never been so fortunate as to cure a case by a single injection, but a lady now under my care has been so signally relieved after seven years of suffering, that she declines a repetition of the operation. My cases have usually required from three to five applications, beginning with a solution of twenty grains of the salt to the ounce, and gradually increasing the strength to thirty-five or forty grains. In very few instances have I been obliged to use sixty grains. In the hands of a careful surgeon, the operation is entirely free from danger. The fears expressed by some who do not hesitate to introduce the solid stick of nitrate of silver into the uterine neck, or apply the same to the delicate conjunctiva of the eye, are incomprehensible to me. With high regards,

I am very truly yours, T. G. RICHARDSON.

Patient is still well. W. E. S.

IRRIGATION OF THE COLON.

By CHARLES W. DULLES, M. D., Surgical Registrar to the Hospital of the University of Pennsylvania.

As we are now getting into that season when diseases of the intestines carry off the greatest number of victims, I desire to call attention to a method of treating inflammations of the colon, which has never—as far as I know—been at all generally adopted or even understood in this country; although it is not uncommonly practiced in Europe. It is not difficult or dangerous; on the contrary, it is simple and easy to carry out, and it cannot possibly do harm. The method was called by Dr. Alois Monti, of Vienna, whom I saw practice it often in 1876 and 1877, "irrigation of the large intestine."

It is carried out in the following manner: The patient being placed on the side, or back, or with the belly downwards, and the pelvis a little elevated, a large, moderately flexible catheter, if for an infant or child—or a stomach tube, if for an adult—is inserted in the rectum. To this is attached, by a tube, a reservoir of water,* the heighth of which can be varied as may be required.

The water is now allowed to flow from a height of about two feet until the rectum is distended; meanwhile the end of the catheter or tube in the rectum is pressed gently but steadily upward toward the left iliac fossa. Very soon it will be found that the water has opened out the folds of the bowel and straightened the curves, so that the tube finds its way beyond the sigmoid flexure and into the descending colon. Unless the operator be very unskilful it may now be pushed gently on, the flow of water continuing without interruption, until it reaches the left hypochondrium, when the transverse colon becomes the descending.

The flow of water is now to be continued until the whole colon, all the way to the cæcum, has been gently distended; the operator assuring himself of this by the amount of fluid used, and by palpation and percussion. The tube is now withdrawn and the operation is complete.

The fluid remains in the bowel a variable length of time. Sometime it begins to come away in a few minutes; but it sometimes remains a half an hour or more.

This method I have seen used by Monti for various inflammatory disorders of the large intestine, as well as to cause expulsion of worms and flatus; and I have myself used it a number of times with results calculated to give me great faith in its usefulness.

The most striking case, I now recall, occurred in 1878, when I was summoned in the night to an infant a few months old, whom I found screaming and struggling with the pains of acute colitis. I took it on my knee, had cool water and a

*A fountain syringe or any of its substitutes serves this purpose well.

fountain syringe brought, attached the silver catheter from my pocket case, oiled it and slipped it first into the rectum and then up to the bend of the colon, and allowed about a pint and a half of water to flow in at that point. As the water filled the bowel the child's struggles and cries ceased, and it actually went to sleep before I was done, and only waked when the water began to be discharged.

Such striking results cannot be considered the rule, of course; but there can be no doubt that so complete a lavement must be of advantage in soothing the angry lining of the bowel and diluting and bringing away both the cause and the products of irritation.

To fill the outlines of the method a little, I will add that in general the fluid used should be cool, not cold water. It is rarely necessary to use astringents. When they are desired, the best is alum, in a one or two per cent. solution, with perhaps a few drops of laudanum added. The irrigations may be frequently repeated; and, in cases that do not get well promptly, various temperatures may be tried—from 70° or 80° to 40° Fahr.—depending on circumstances.

The amount of fluid to be used varies with the age of the patient. It should always be enough to fill the *entire* colon. An unweaned infant may require more than two pints, an adult several quarts.

No real syringe should be used if hydrostatic pressure can be obtained; though, if this is not to be had, I have found the syringe, carefully and slowly used, will serve very well.

Thus far I have referred mainly to such intestinal troubles as are most frequent in summer. The method is, I think, invaluable in all inflammatory affections of the colon, from diarrhœa to dysentery, and useful—for reasons I cannot go into now—in inflammation of the small intestine also.

Before leaving the subject, I want to speak of another use which I learned by experience last winter. I was called into the country to see a child about two years old, whom I found in convulsions. The use of revulsives had been tried without effect. I could get nothing in its mouth to produce vomiting or catharsis. The means at hand were very limited. I was satisfied from the history that the convulsions were due to irritating ingesta. I concluded to see if they were in the colon. So I took my silver catheter, attached it to a syringe, passed it through the anus, distended the rectum, pushed the catheter up till I could feel it through the abdominal wall, just below the left costal cartilage, and filled the whole colon with warm water, in which a little soap had been stirred. After about three minutes the water came away and brought a mass of undigested and indigestible stuff that was quite sufficient to cause the trouble. The convulsions stopped, and the child got quite well.

From this case, I think, a useful hint may be gathered, and

I am sure I shall repeat my experiment the next time I have to treat a case of convulsions due to intestinal irritation.

I recall attention to this method because I think it too valuable to be allowed to be forgotten; and I hope that it may prove a helpful adjunct to our other therapeutic resources against intestinal disorders.—*Medical News.*

WHAT SHOULD BE DONE WITH INSANE CRIMINALS.

From the annual address to the State Medical Society by Dr. Tyrrell, the late President, are taken the following pertinent remarks:

That our State Prison, as at present constituted, is not a proper place for the custody or confinement of these unfortunates is conclusively shown in the report of Dr. Pelham, formerly Physician to the Prison at San Quentin; in his report for 1877 he says: "The prison is destitute of proper accommodations for the insane. * * * At present they are confined in cells in the main cell building, and are not separated from the other prisoners except by cell walls, and they often render night hideous by their ravings, thus disturbing the sleep of others, and those who must labor during the day. To avoid this state of affairs, there is at present but one remedy —the dungeon—which has frequently to be used for this purpose. With the present accommodations for the treatment of such cases, results are unsatisfactory and remedial measures cannot be resorted to with reasonable prospect of success."

From this extract we may learn that no proper place exists in our prison for the care or treatment of these insane criminals. It is not right or just to keep a noisy maniac within the wards of a hospital among cases of sickness where absolute quiet is required; neither ought the nineteenth century civilization to permit the thrusting of a raving maniac within the walls of a dark and noisome dungeon, deprived of light and wholesome air, perhaps chained to its damp and reeking floor, to preserve from harm its other and more sane inmates. The only remedy presented to us to obviate this manifest and glaring wrong to our fellow-beings, who, although insane, are not criminal, and to those who are both criminal and insane, is a separate and special provision for the care and custody of the criminal insane, and this in the erection by the State of a suitable asylum, constituted and adapted to this special purpose, since the inmates intended for its occupancy, although insane, are still dangerous outlaws and criminals, retaining for the most part all their criminal characteristics and vicious proclivities. More especially is this required from the want of adequate room for the proper care of the ordinarily insane, our asylums now being filled far beyond their sanitary capacity. It is the opinion of those who are interested in

the welfare of the insane, and have written upon the subject, that the preferable location for such an asylum would be within the precincts of our State prisons, and not in connection with hospitals or asylums for the ordinarily insane. At Folsom, within our prison grounds, is an admirable location for such an asylum; there is plenty of room, a genial climate, a generous soil that would afford plenty of occupation in cultivating and adorning it. Its construction might be accomplished at a minimum cost by utilizing prison labor; the material is right on the ground, and its medical management might safely be intrusted to the medical officer of the prison. Within its walls should be confined, for life, all those dangerous homicides who are acquitted upon the plea of insanity, and also all those who offer the same defense for other equally atrocious crimes. All those who become insane after their arrest and before their trial, should also be committed to this asylum, as well as those who become mentally deranged after trial and conviction, or who are serving out their term of punishment. This would at once relieve our State insane asylums of this very undesirable class of patients, and of their over-crowded condition, and release our prisons from the necessity of keeping insane convicts locked in their cells or thrust into dungeons, to the disgrace of our civilization.

The Penal Code should be so amended that upon the trial of any person for murder or other capital offence, and his insanity at the time of his committing the offence is given in evidence, as plea against punishment, and the jury acquit him, the jury ought to be required to find *specially* whether he was insane at the time of the commission of the offence, and declare whether he was acquitted on account of such insanity; and if the jury find that he was, and was acquitted on those grounds, then the Court should have no other alternative than that of committing the defendant to the asylum for the criminal insane for the term of his natural life, regardless of his mental condition at the time of rendering the verdict. For the sufficient reason, that no guarantee can be offered or accepted, by the prisoner or his friends, that a recurrence of his emotional, impulsive, inspirational, moral, or temporary, or any other insanity upon which he may have been acquitted, will not take place at any moment thereafter, to the danger of the community or the life of an individual. If the plea were true, the prisoner is certainly one of the most dangerous of men to be at large; and if false, and only used by the defense with legal ingenuity, as a means of swaying the minds of a susceptible jury, the punishment of incarceration for life would be no greater than such a criminal would deserve. Such a change in the organic law would at once put a stop to those travesties of justice we have so often, and so lately, witnessed in our Courts of law, and prevent the plea of insanity from being used to defend, or cover up, some of the most revolting and

atrocious crimes that have ever disgraced the annals of the State.

The provisions of those sections of our Civil Code respecting the examination of persons alleged to be insane before juries, and assisted by counsel, should be amended or repealed, and also the mode of medical examination by hypothetical questions, it being impossible for the medical witness to fairly present his opinion to the Court and jury by this mode of putting questions. The principle by which medical experts are compelled to attend Courts of law without adequate compensation is unjust and unfair; the physician's special knowledge being his private property, which, if taken from him by the State, ought to be paid for. This subject demands investigation and a legal remedy by the Legislature.

Superior Judges should be empowered to allow such extra compensation to medical experts summoned in criminal cases as in their judgment would be adequate and just; to fix the amount, and order it paid out of the funds of the County Treasury. Judges only should have the power of appointing medical experts, or better still, medical experts should be officers of the Government, as are the Judges whom they assist. Their appointment should be permanent to secure impartiality, they should be rigidly examined to secure their competency, and they should be well paid to secure the ability necessary to the office. Thus only will experts be had whose views are not pre-ascertained in favor of prosecution or defense and we spared the humiliation of seeing brought into Court two sets of witnesses, each impliedly under contract to render his best services in the interest of the party by whom he is paid, or through the influence of personal friends or professional bias. —*Pacific Med. and Surg. Jour.*, June.

GRAND FUN, PIGEON SHOOTING AND VIVISECTION.

There lies before us a copy of *The Olympian*, published monthly in San Francisco, and devoted mainly to sports of various kinds. Most of these sports are unexceptionable and may do good to persons who have plenty of time and no better use for it. Not so, however, with "Pigeon Shooting," the descriptions of which remind one of the old Mexican bull fights which were suppressed by law as too barbarous for modern civilization in California. Five shooting matches are described, at each of which two or three hundred birds were the subject of the "fun." Some of the shooting was "brilliant throughout, and in many instances remarkably brilliant." Some of the shooters killed thirty or forty pigeons. About four out of five or six of the birds escaped. One "had the bad taste to die in the topmost branches of a tall tree," and not in time to count to the credit of the sportsman who shot it. At one of the matches "very many ladies added the charm of

their presence and the graces of their smiles to the sport." The actors were not of the riff-raff, such as might delight in bull-fights—at least not all of them, for we notice a number of our most respectable citizens in the list, and men who would not be likely to associate with low companions. Looking from the standpoint of these sportsmen we think that "fun" would be promoted by a revival of the old bull-fights. These would have the advantage over pigeon-shooting in risking the lives of only two animals at a time, a bull and a bear, or a bull and a man, and it would not be absolutely necessary for either to be killed. We always thought history exceedingly unjust to Domitian in citing as an evidence of his cruel disposition that he derived amusement from killing flies. Those old historians never enjoyed the "fun" of shooting pigeons for amusement, or they would have placed a different estimate on the sport of fly-killing. And here let us hazard a word of counsel to our vivisectionists—to abandon the claim that they mutilate an occasional cat or dog for the sake of science, and profess to do it for "fun." Let them secure a corner in *The Olympian* under the head of "Sports," and perhaps their performances will attract the presence of ladies who will grace them with their smiles.—*Pacific Med. and Surg. Jour.*, June.

SMALL DOSES FREQUENTLY REPEATED.

It is becoming a very general practice to administer certain active medicines in doses so small as at first sight would appear entirely inert and even approaching the minute doses of homœopathy. For example, the tenth of a drop of tinct. aconite at a dose is given to a child a year old in febrile disorders. But there is one feature of this mode of dosing which gives it a character not noticed at first view, viz., the dose is repeated every fifteen or twenty minutes. Now one-tenth of a drop every twenty minutes amounts to seventy-two tenths in twenty-four hours, or a little over seven drops. To give this quantity at a single dose to a child of one year would be malpractice, and dangerous malpractice, too. The cumulative action of these minute doses is an important consideration in therapeutics. The twentieth of a grain of morphia would be a trifling dose for an adult. Yet if it be repeated hourly, it would amount to nearly two and a half grains in twenty-four hours; a dangerous quantity.—*Pacific Med. and Surg. Jour.*, June.

BANDAGING THE ARM AS A SUBSTITUTE FOR BLOODLETTING.

Prof. Alonzo Clark, of New York, had a patient who suffered daily attacks of pulmonary hemorrhage, by which he was greatly exhausted. During one of these bleedings the arm was bandaged as if for venesection, so as to retain a large quantity of blood in the veins of the arm and exclude it from

the general circulation. In four or five minutes, when the hand and arm were much swollen, the bandage was removed and applied to the other arm. The hemorrhage soon ceased, and returned but slightly next day. The patient was then left to himself, with instructions to tie up the arm whenever an attack was threatened. He soon went to his work, and was at his work two or three years afterwards. Dr. Clark has employed the same means in other cases as a substitute for bloodletting. He advises that the bandage be kept on one arm not longer than five minutes at one time, for fear the blood should coagulate. The practice is not new, having been employed in the army in cases of bullet wounds through the chest. —*Ibid.*

FOREIGN BODIES IN THE AIR-PASSAGES.

Dr. J. R. Weist, of Richmond, Ind., in *The American Practitioner*, after a careful and systematic analysis of one thousand cases where foreign bodies have been introduced into the air passages, summarizes their treatment as follows:

1. When a foreign body is lodged either in the larynx, trachea, or bronchia, the use of emetics, errhines, or similar means should not be employed, as they increase the sufferings of the patient and do not increase his chances of recovery.
2. Inversion of the body and succussion are dangerous, and should not be practised unless the windpipe has been previously opened.
3. The presence simply of a foreign body in the larynx, trachea or bronchia does not make bronchotomy necessary.
4. While a foreign body causes no dangerous symptoms, bronchotomy should not be performed.
5. While a foreign body remains fixed in the trachea or bronchia, as a general rule bronchotomy should not be practised.
6. When symptoms of suffocation are present or occur at frequent intervals, bronchotomy should be resorted to without delay.
7. When the foreign body is lodged in the larynx, there being no symptoms of strangulation, but an increasing difficulty of respiration from edema or inflammation, bronchotomy is demanded.
8. When the foreign body is movable in the trachea, and excites frequent attacks of strangulation, bronchotomy should be performed.

TWO HUNDRED AND FIFTY CASES OF MALARIA TREATED WITH THE TINCTURE OF IODINE.

Dr. Robert B. Morison, in *Maryland Medical Journal*, says:

The use of iodine in the treatment of intermittent fever is by no means new.

Stille and Maisch, in their dispensary, under the head of iodine and its uses, say: "In intermittent fever iodine displays decidedly curative virtues, both in tropical malarial regions and in those of temperate zones. The tincture has been given in doses of from five to fifteen minims largely diluted."

So successful have we been with iodine, we always order it now in intermittent fever of the acute sort. We give it to pregnant or nursing women; we give it where there is diarrhœa or constipation, and we have only heard, out of these 250 cases, from 2 where the chills have not been controlled by it. The dose is a pleasant one, and the opinion of the patients is decidedly in favor of taking it instead of the bitter malarial mixture. In only one case was nausea caused by it. In this case the dose was decreased to one-half the regular dose and a cure effected. We had no case of iodism, nor did we discover any albuminuria. The patients, as is natural after an acute disease, generally need a tonic, and this we always order in the form of iron or one of the bitters.

In conclusion, I will say, the treatment is an established fact at the dispensary, and is carried out by the experience of others elsewhere and in private practice. Dr. Hoffman has tried it at the jail with success and is, after having seen it so often given, quite as much convinced as I am of its efficacy.—*Southern Medical Record.*

ENLARGED PROSTATE.

Dr. Atlee, in a paper read before the Philadelphia County Medical Society, on enlarged prostate, lays down the three following propositions, with remarks following:

1. That the prostate and its vessels are possessed of unstriped muscular fibre.

2. That the bladder is a hollow organ with an involuntary muscular coat.

3. That ergot will contract unstriped or involuntary muscular tissue, as it does in the uterus.

Therefore, as a corollary, ergot ought to be a remedy for enlarged prostate and its effects.

This was the theory upon which I based the practice, and whether the rationale is correct or not, my experience in the use of ergot in such cases had been most satisfactory. Several patients over sixty years of age have been treated with ergot, and have been able to lay aside the catheter after having been the victims of its daily use. When called to a case of retention from enlarged prostate, my rule is first to relieve the bladder by means of the catheter, and follow this immediately by ordering twenty drops of the fluid extract of ergot every four hours, until the patient gets entire control over his

bladder. Until this is accomplished, I continue to relieve him with the catheter every twelve hours. As his power of urination is restored, I diminish the frequency of the medicine, and gradually end in giving a dose every night. A gentleman, who died last month, at the age of ninety-two, was exceedingly ill in August, 1872, in consequence of retention of urine from enlarged prostate, and had to be regularly catheterized for relief. He was placed upon the above treatment, and in a few days was able to do without his catheter. His urinary organs were kept in a good condition by taking a dose of ergot every night, and he enjoyed much better health in consequence, and died recently of old age. I mention this case in particular, because a post-mortem examination proved to me that the prostate had been diminished in size by the treatment.

In these cases, it is very common for sedementary deposits to accumulate in the bladder, which becomes a source of irritation and discomfort, and if the organ should fail to expel its contents entirely, it is best every few days to introduce the catheter to remove them.—*South. Med. Record*, August, 1878.

A NEW TREATMENT OF TAPE-WORM.

From the results of numerous experiments, M. Bouchut had ascertained that not only ascarides, but fragments of tænia, when placed in a weak alcoholic solution containing one thirty-fifth of amylaceous pepsine, are digested by the fluid in the course of twelve hours. We thus obtain an artificial digestion of the animal matter exactly similar to that which ensues when meat is treated by the same process. On submitting the conclusion drawn from his experiments to the test of practice at the Enfans Malades, M. Bouchut found that the solution of pepsine was eminently successful. If his experience be confirmed, a valuable addition will be made to adult as well as infantile therapeutics. In conclusion, we may observe that animal food is, almost certainly, the channel through which the parasite is conveyed; and hence that official inspection of suspected dealers in meat would form a useful adjunct to the practice of the physician.—*Louisville Med. News.*

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*THE ERUPTIONS CAUSED BY QUININE.

Some months ago Van Harlingen published, in the Archives of Dermatology, an elaborate account of all the medicinal eruptions. Five distinct effects in the skin are produced by quinine and the cinchonia compounds: (1) Erythematous, or scarlatiniform eruption; (2) papular; (3) urticaria; (4) purpuric; and (5) irritation of the skin of the genitals. Of these, the erythema seems to be one most frequently met with, and from several late articles upon this subject it may be in-

ferred that this phenomena depends more upon idiosyncracy of the patient than upon the large dose of the drug.

The following case resembles an ordinary attack of scarlatina: Prof. Kobner, Berlin (*Klin. Woehen*), prescribed quinine for a man who was suffering from bronchitis. In two hours he had a violent rigor, a feeling of suffocation, severe headache, nausea, and vomiting. Two hours later another short rigor, followed by a burning sensation, at first in the head and then all over the body. These phenomena occurred about 8, P. M. The next morning there was fever, an itching eruption over the whole body, difficulty of swallowing, and dryness of the throat. The eruption was of a deep red tint, disappearing momentarily on pressure. Face swollen, conjunctiva injected, nasal mucous membrane dry. There were large papules upon the thighs, surrounded by healthy skin. Pulse 108, temperature of skin elevated, respiration calm, tongue slightly tremulous, moist, posterior walls of the pharynx very red and injected, rest of the mouth normal. This certainly looked like scarlatina, but previously to this time the patient had had two similar attacks as the result of taking quinine. The eruption was considered by the physicians attending as scarlatina, and was each time followed by desquamation.

Dr. Gilliam, in the same journal, relates how he prescribed quinine, in three or four-grain doses, for a boy about fifteen years old. In a few hours the patient was found with intense congestion of the conjunctiva, edema of the face and limbs, and a bright erythematous eruption of the whole surface of the body, and complaining of terrible burning and itching. Subsequently the administration of quinine on two occasions produced the same symptoms.—*R. L. McDonnell, M. D., in Canadian Journal of Medical Science. Miss. Valley Medical Monthly.*

LIGATION OF UMBILICAL CORD.

Professor Lusk in his new work on Obstetrics, after discussing the question for and against the ligation of the umbilical cord prior to cessation of pulsation, draws the following practical observations:

1. "The cord should not be tied until the child has breathed vigorously a few times. When there is no occasion for haste arising out of the condition of the mother, it is safer to wait until pulsations of the cord have ceased altogether.

2. "Late ligation is not dangerous to the child. From the excess of blood contained in the fetal portion of the placenta, the child receives into its system only the amount requisite to supply the needs created by the opening of the pulmonary circulation.

3. "Until further observations have been made, the practice of employing uterine expression previous to tying the cord is questionable.

4. "In children born pale and anæmic, suffering at birth from syncope, late ligation furnishes an invaluable means of restoring the equilibrium of the fetal circulation.

In view of the present practice of immediate ligation these conclusions are pertinent.—*Cincinnati Lancet and Clinic.*

THE DURATION OF ISOLATION OF SUBJECTS OF CONTAGIOUS DISEASES.

M. Hillairet, in the name of a Commission composed of MM. H. Roger, Bergeron and Hillairet, read before the Académie de Médecine a report in reply to the inquiry addressed to the Academy by the Minister of Public Instruction, as to how long a pupil affected with a contagious disease should be kept away from school.

The report considered the following diseases: varicella, variola, scarlatina, rubeola, mumps, and diphtheria, and the conclusions are as follows:

Varicella, whose progress is often irregular, may require ten to twelve days for the fall of the crusts: The isolation should be about twenty-five days.

Variola has a prodromic period of three to four days; four or five days of eruption; three or four days of suppuration; desiccation requires three days; fall of the crusts, six days. Then comes a period of furfuraceous desquamation without definite limit. Isolation should not be less than forty days.

In scarlatina the period of invasion occupies from six to forty-eight hours, or exceptionally three days; the eruption is completed in from five to eight days; desquamation commences on the fourteenth or fifteen day, and lasts from fifteen to twenty-six days. Isolation should last forty days.

Rubeola has a prodromic period of three to four days; exceptionally from six to eight, or even twelve days; the eruption is completed in twelve or forty-eight hours, then it declines for twenty four hours; desquamation lasts from eight to fifteen days. Isolation for forty days will be sufficient.

Mumps, as a rule, has a duration in ordinary cases of six days; convalescence lasts from six to seven days. If any complication of metastasis occurs, it lasts usually about nine days. Isolation for twenty-five days is sufficient.

The duration of diphtheria is very variable, but isolation should be maintained for at least forty days.

The Commission consequently proposes the adoption of the following measures:

1 Pupils affected with chicken-pox, small-pox, scarlet fever, measles, mumps, or diphtheria, should be strictly isolated from their comrades.

2. For small-pox, scarlet fever, measles, and diphtheria, isolation should not be shorter than forty days; for chicken-pox and mumps, twenty-five days is enough.

3. Isolation should last until after the patient has been bathed.

4. The clothing worn by the patient at the time he was taken sick, should be subjected to a temperature of 90° C. [194° Fahr.], and to sulphur vapor and then well scoured.

5. The bedding, curtains, and furniture of the sick-room should be thoroughly disinfected, washed and aired.

6. The pupil of a school, after recovery from one of the above contagious diseases, should not be readmitted to the school unless furnished with the certificate of a physician that the above precautions have been observed.

These conclusions were adopted by the Academy.—*Gaz. Med. de Paris*, July 22, 1882. *Medical News.*

DIPHTHERIA.

By J. A. Reagan, A. M. M. D., Weaverville, N. C.

This much-dreaded disease has been written upon, philosophized upon, and speculated upon until all its symptoms are so familiar to the profession that a description of them would be a work of supererogation. Its treatment, however, is still open to discussions, suggestions, opinions and experiments; consequently I have been experimenting to some extent with jaborandi, and give the result. I have tried it in six cases, some as bad as I ever saw, and all recovered. I used the fl. ext., in doses ranging from 15 to 30 drops, according to the age of the child. Gave it every hour until the salivary glands were fully aroused. This flow of saliva loosened the membrane and it came away in pieces. I gave it after the removal of the membrane sufficiently often to prevent its reappearance.

At the same time I gave the tinct. ferri chloridi and quinine to sustain the strength. I also gave them a nourishing diet, as much as the little sufferers would take. I gave them very close attention as I was anxious to note, particularly, any change that might take place, and can, from watching its happy effect in these cases, conscientiously recommend others to try it, and report success.—*Clinical Brief.*

URENIC CONVULSIONS AND COMA SUCCESSFULLY TREATED BY HYPODERMIC INJECTIONS OF PHILOCARPIN, CHLORAL, AND BENZOIC ACID

The patient, a boy of twelve, was suffering from acute nephritis, urine so scanty as almost to approach complete suppression, deeply tinged with blood, and highly albuminous. The treatment adopted at the outset consisted of a brisk purge of compound jalap powder, leeches to the lumbar region, warm blanket bath, and mild diuretic mixture. For two days the case progressed fairly well, but on the early morning of the third day, being hastily summoned, I found my patient in

convulsions, perfectly unconscious, pupils dilated and insensible to light. At this juncture the treatment resorted to was the hypodermic injection of a third of a grain of the nitrate of pilocarpin and an enema of chloral hydrate. Copious perspiration was thus produced; the convulsions continued, however, as frequent, but not so severe. On the forenoon of the following day the pilocarpin was repeated, likewise the chloral; similar diaphoretic effects resulting, with decided abatement of the convulsions. With considerable difficulty I now managed to give a dose of jalapine. As soon as the ability to swallow returned, benzoic acid in two-grain doses was administered every hour, and the strength supported by small enemata of beef tea, to some of which was added a little brandy. From the time the power of swallowing returned benzoid acid was the only remedy used, and its use was continued for six days. It was given as above for the first forty-eight hours of that period, and after that in five grain doses every three hours. During these six days the patient, though free from convulsions and able to swallow, lay in a semi-conscious state, requiring to be spoken to loudly and shaken to get him to take anything. His vision was completely lost. He knew no one, could see nothing held up before him, not even a bright light, pupils still continuing slightly dilated. Under the steady use of the acid the urine increased in quantity, grew lighter in color, and the albumen lessened daily. His mind became clear and vision once more distinct, convalescence being gradually established.

Whether the theory regarding carbonate of ammonia circulating in the blood being the cause of uræmia be correct or not (and the recent experiments of Oppler Zalesky seem to indicate that it is not), this is the second time within my own limited experience of such cases in which benzoic acid has done good service. Whether its mode of action be the conversion of the poisonous alkali into a harmless acid and salt, or in what other specific way it acts, I am not prepared to say, but the above is strictly in accordance with facts.—*W. Brown Moir, M. D., in London Lancet. Louisville Medical News.*

SUBCUTANEOUS INJECTION OF ETHER IN PNEUMONIA.

From experience in fourteen cases Dr. Barth (*Lyon Med.*) strongly advocates the subcutaneous injection of about one gramme of ether in adynamic pneumonia. Almost instantly respiration becomes easier, pulse gains in strength and fullness, while the color of the face becomes more natural. In two or three minutes the ethereal odor is noticed in the breath, showing that the volatile liquid has reached the air passages. It is necessary to use the injection at least twice a day, and in severe cases four doses may be thus administered in twenty-four hours without inconvenience. Dr. Barth has not exceeded

this dose, nor has he experienced any trouble from the punctures in the way of serious irritation.—*Glasgow Med. Jour. Gaillard's Med. Journal.*

THE HYGIENIC VALUE OF THE ELECTRIC LIGHT.

The French scientific journal *La Nature* summarizes a communication from Dr. Javal, who believes that the electric light is absolutely without danger to the sight, in consequence of the amount of division which can now be obtained in it. *L'Union Medicale* also reminds its readers that similar researches of great interest from a scholastic point of view were published in that journal in May and July, 1881; including the researches of Dr. Cohn of Breslau, who found that the electric light increases six fold, as compared with daylight, the perception of yellow, and doubles the perception of green and blue. The observations of Dr. Blasius and Dr. Hoppe, in a discussion which took place at a meeting of the Brunswick Society of Natural Sciences, are also noteworthy. These scientists have shown that illumination by the electric light deserved preference over all other methods in use, for the following reasons: 1. It does not pollute the air with deleterious gases or other unhealthy products. 2. It induces a greater visual unity than with daylight or gaslight. The conclusion adopted by the meeting was, that the "hygienic qualities of the electric light have not hitherto been appraised at their real value."—*British Medical Journal.*

POISONS AS USED BY THE MEDICAL PROFESSION AND ABUSED BY THE PUBLIC.

By Blackall Marsack, M.R.C.S.

The subject which I have chosen for my short address to you, to-day, is one that concerns the whole of the medical profession, and which, I think, an Association like ours (composed of something approaching ten thousand members) should take into its serious consideration, without further loss of time. It is poisons, as used by us in our prescriptions, and as abused by the public. Scarcely a week passes but we read of deaths from poisons of what I may call the fashionable type—such as chloral, morphia, chloroform, cholorodyne, etc. And can we be surprised at this, when we consider the matter fairly? Are we not ourselves often to blame? Do we not prescribe chloral and morphia, etc., and put no restriction upon the druggist as to how many times this prescription is to be dispensed by him? The consequence of this is, the patient, feeling the comfort obtained by the drug, continues to take it (often in increased doses), without our sanction, until at last he or she becomes a confirmed *habitué* to this evil; and, like the dram-drinker, cannot or will not do without it.

Another great evil of the present day, is the frequency with which Medical men allow their patients to use the hypodermic syringe themselves. This leads to much abuse. Probably five or six drops are ordered to be used for each injection; but, unfortunately, a bottle of the solution is supplied. I have seen a lady, whose body was covered with sores and scars, wherever she was able to use the instrument, from the practice of this wretched habit. I also knew a patient who confessed to having injected, in three operations, as much as fifteen grains of pure morphia in twenty-four hours, which would be sufficient to kill half-a-dozen persons unaccustomed to the drug. So bad has the custom become in some parts of Germany, that the authorities have been compelled to erect institutions for the sole purpose of curing those who have become habituated to this vice. I have before me an interesting book on this subject, by Dr. Levinstein, of Berlin, naming the disease *The Morbid Craving for Morphia*. He says, on page 4: "The originators and propagators of this disease are medical men, who, in cases more or less protracted, have advised the patients themselves to use the injection of morphia." You will also find, in reading this book, how difficult and often dangerous it must be to attempt to cure such cases. The vice, once indulged in to excess, often makes a happy home miserable; and the victim, who becomes accustomed to the poison, lies through thick and thin to the medical men and nurses, and, in the case of a woman, to her husband and friends, and ninety times out of a hundred becomes an habitual spirit-drinker as well; for, when not under the sporific influence of the drug, and dreading for the time the immoderate repetition of the dose, she takes to drink to an alarming extent. Her household duties are neglected; the motherly care of the little ones is confided to the teaching of the nursemaid; and the husband's home is made wretched. Too often the poor fellow is in total ignorance of the true cause; blinded with the idea that his wife is suffering from some obscure malady, for which the doctors have prescribed perfect rest, brandy, varied by champagne, beef-tea, and turtle-soup. How about the day when the truth dawns upon him; and he finds that, after all the expenses of doctors, nurses, seaside, champagne, turtle, and brandy, that his wife is nothing less than a slave to her own passion—a craving for morphia under the skin? The picture I have drawn is not an exaggerated one. I know of such a case, and doubt not there are medical men here present who have, unhappily, seen similar results from this fearful vice. Lamson's case is one which is most instructive for us all. The vivid description of the effects of the drug on himself should be a lesson to us to do all in our power to prevent this morbid craving; and call for some strong measures to be placed against the sale of the hypodermic syringe, except to members of our profession. For, I doubt not, there are hundreds and thousands who are constantly in the habit of

injecting morphia and other poisons, without the consent of their medical adviser.

Chloral is indulged in to a very great extent; and the drug is imported into this country from Germany by the ton, but is not at present included amongst the poisions in the Poisons' Act. Numerous cases have been recorded of deaths from this medicine; and you will frequently find, in your practice, patients who have been in the constant habit of taking chloral, night after night, for months. Not long since, a young lady was found dead in bed, with no fewer than three empty draught bottles by her side, leaving strong evidence of having contained a full dose of this drug in each. You will perhaps say she wished to destroy herself; but I think it more probable that she was ignorant of the danger, and not getting sleep from the first dose, took the second, and then the third. A drachm-dose has several times proved fatal, and even a less quantity where the heart's action has been feeble. Is not this a medicine which should never be used, except by the authority of the medical practitioner? and ought not some strong measures to be taken to prevent the druggist from supplying the public with this dangerous drug? One fascinating peculiarity of this medicine is, that it seldom produces headache or constipation, and the patient rises in the morning without any fear of detection. When travelling on the Continent last year, I met a lady, who had taken with her from this country a dose for every night that she intended to be away; and I have no doubt that hundreds do the same; or, how could England get rid of the enormous quantity that is yearly imported, considering that at it is only used medicinally.

Chloroform is, I think, coming more into disuse by the public, chiefly owing, I presume, to the numerous deaths from its use which have been recorded. Nevertheless, you will frequently find ladies who can produce you the article, at a moment's notice, from their "lock-ups;" and, though it is down in the schedule, they will tell you that they can get an ounce or more from the chemist without any difficulty, and without troubling you for an order. This should not be.

Sulphuric Ether they are not so likely to indulge in, as it stinks too much, and tells its own tale.

Chlorodyne gives headache, constipates the bowels, and acts too much like opium, to become a great favorite. Still it is the constant companion of many. It ought in my opinion be classified in the schedule as belonging to one of the preparations of opium.

And this leads me to say, that all patent medicines having a soothing effect should be analysed by a public analyst; and those preparations found to contain poisonous properties should be forbidden to be sold to the public, unless authorized by the prescription of a qualified medical man; and I suggest that all such prescriptions should plainly set forth whether the doses or

quantities should be repeated, and how often. If repeated, the chemist or dispenser should be bound to make an entry to that effect on the face of the prescription—so that, presented elsewhere, if the full quantity have been dispensed, the order or prescription would be null and void. If this should be impossible, I would suggest that only one druggist, in a population of ten thousand, should be licensed to sell poisons of this description; and that his premises and books should be regularly inspected by a Government inspector, like the brewers and beer-shops; that his term of license should be two or three years, when another druggist in the town should have his turn. This plan should be so arranged as not to interfere with the dispensing of physician's prescriptions.

Another subject, bearing somewhat on the above, demands our attention; and that is, the prevention of the use of arsenic in the manufacture of wall-papers, dress-fabrics, etc. The common idea is, that the only paper which contain this poison are certain green shades; this is a great error. A case in point came under my notice very recently. Being suspicious that a new decorated house had something to do with the constant illness of the children I was attending, I had nine pieces of different paper examined, only one of which number contained any green, and I found that seven contained arsenic in large quantities. Now, if these papers be not varnished, what happens is this. The rooms are exposed frequently to the damp atmosphere; then on the fire being lighted, the heat on the dampish walls causes the surface of the paper to pulverise; and you will find, by brushing your coat-sleeve over the surface, that it will be covered with dust containing all the coloring matter of the paper. That this will give rise to irritation of the mucous surfaces of a child's eyes, nose and throat, I think you will most of you allow. Surely, if decorations cannot be made without the mixture of such a poison, the sooner we go back to the old plan of having our sleeping-rooms and nurseries white-washed, the better. I therefore consider steps should be taken to put a complete stop to this evil, and this, I conceive, should come under the Sanitary Act. Dressmakers have told me that they often suffer for days from sore-throat, and irritation of the eyes and nose, after making up ladies' ball dresses of bright green gauze. Surely, this should no longer be so; and I do think it is through the members of our profession that this matter should be brought under the notice of the Government. And I consider one of the primary duties of an Association like ours is to point out to our legislators these evils which exist, and help them in framing measures for strengthening any Acts of Parliament which treat on this subject.—*British Medical Journal.*

SUBCUTANEOUS INJECTION IN PUERPERAL CONVULSIONS.

Dr. R. M. Bowstead, in the *British Medical Journal*, reports as follows:

Some years ago, I published two cases of puerperal convulsions cured by the subcutaneous injection of morphia with tincture of aconite and solution of atropia; and in 1878, I cured another case by the same means. I think, however, the present case will prove the efficacy of the remedy still more strongly.

I was sent for to attend L. P., aged 29, a primipara, at 1, A. M., on June 12th, 1882. Her legs were œdematous; her urine contained a trace of albumen. There was œdema also of the labia. At 11:15, A. M., she was delivered of a male child. I left soon afterwards, as everything appeared to be satisfactory. At 3, P. M., her husband called to say that his wife was suffering from severe headache and sickness. I sent a saline bismuth draught, which at once relieved her. At 4, P. M., I was hastily summoned, as she was reported to have a fit. On my arrival, I found her in strong convulsions, frothing at the mouth. The fits continuing one after another, I injected into her arm half a grain of morphia, two minims of Fleming's tincture of aconite, and two minims of liquor atropiæ. This had the effect of slightly diminishing the fits; but they continued. After half an hour, I repeated the injection. The fits immediately ceased, and she fell into a sound sleep. At 11, P. M., I saw her again; she was sleeping, and perspiring freely. As she had not passed urine, I introduced a catheter and drew off a pint. The lochia had ceased. On the 13th, at 9, A. M., she had slept all the night, and was still inclined to sleep, but quite sensible. At 3, P. M., she was sensible, and asked for something to eat. Pulse 120; temperature 104°. She had passed urine freely, but it was not offensive to the smell. The lochia had appeared slightly. At 10, P. M., pulse 110; temperature 101°. She had taken freely of support, but was rather restless. I gave her a draught of chloral hydrate with bromide of potassium. On the 14th she had passed a tolerable night. The lochia were now profuse. I gave her a minim of tincture of aconite every hour, which caused her to perspire freely. Her bowels were relieved by castor oil. After this she continued to improve; and on the 16th, I gave her a mixture of quinine. On July 3rd, she was convalescent, and able to set up. The urine was natural. She is naturally delicate, having lost two sisters in childbirth; and the whole family are consumptive.

I publish this case with the hope that other medical men will try this treatment, and be able to write as favorably as I have done. In all my cases the injection has acted like magic. I made the injection in 1868; and its effects are as good as ever.

CURE OF VARICOCELE BY INTRAVENOUS INJECTION OF CHLORAL.

Dr. Angelo Negretto (*Gaz. Med. Ital.*) reports two cases of severe varicocele which he successfully treated by Porta's method. The first (left side) had existed for over two years, and was as large as a pigeon's egg, the diameter increasing on effort to four and a half centimetres. It caused a severe pain and partial atrophy of the testicle. Four injections, each of half a gramme, of chloral hydrate were made with a Pravaz syringe at four several points into the covering of the varicocele. A slight grumous exudation from the punctures ensued, and on the following day some signs of orchitis. These were overcome by cold carbolised applications; and as the upper part of the tumor seemed unaffected, three more injections were practiced there. In six days the patient was well, and the varicocele gone. It has not reappeared since. The other case (also left) had existed for five years, and was larger and harder than the foregoing, owing probably to repeated attacks of phlebitis in the varicose veins. A slight degree of inflammation along the spermatic cord existing, the patient was first treated with lead lotion. Five injections of chloral hydrate (half gramme) were administered as before, resulting in great diminution of the tumor. In a week three more injections were given, and the result, with some slight intercurrent inflammation, was complete and permanent cure. The various methods of treating varicocele are so numerous and so little satisfactory in many cases that a new and hopeful one is by no means unwelcome. This of Porta is not widely enough known, though it has the decided merit of being less dangerous than many in current use.—*Practitioner*, July.—*N. Y. Med. Abstract.*

TREATMENT OF CHRONIC DYSENTERY BY LARGE ENEMATA OF NITRATE OF SILVER.

In the *Lancet*, April, 1882, Dr. Stephen Mackenzie reports four severe cases of chronic dysentery, which were rapidly and effectually cured by one, or, at the most, two injections of nitrate of silver, in the proportion of one drachm of the nitrate to three pints of water. Twenty years ago this plan was much more frequently employed than it has been of late years. It was then found to be equally efficacious in acute and in chronic cases. In the *Lancet*, June, 1876, a case is reported in which several American medical men introduced a speculum into the rectum under anæsthetics, and freely cauterized the mucous membrane as high as they could reach, and with marked success.—*The Medical Record.*

TREATMENT OF GONORRHŒA BY INJECTIONS OF SULPHUROUS ACID DILUTED WITH WATER.

For some time I have treated all cases of gonorrhœa with injections of sulphurous acid diluted with water, and as the results in my hands have been very satisfactory, I write in the hope that others may be induced to give this method a trial.

I do not offer any theory on the subject, I simply state the fact that I have now treated sixteen cases of gonorrhœa, using no other medicine, and they all returned to duty in an average of six days. I have not observed a relapse or any bad effect. The majority of the cases were second attacks, but those suffering from primary attacks of the disease recovered equally fast.

When I commenced this method of treatment, I used much stronger injections than I do at present. I find sulphurous acid one part to fifteen of water quite strong enough for most cases. The rules of treatment I recommend are: place the patient on low diet, and administer injections of sulphurous acid diluted in water one to fifteen, three times a day, no other treatment being necessary. I find it is necessary for the attendant to give the injections, for if it is done by the patient it is never well done, most of the fluid escaping back outside the nozzle of the syringe. The injection should be kept in the urethra from three to five minutes. If the patient complains of much pain, or if there is a tendency to chordee, it will then be sufficient to administer the injections once or twice in twenty-four hours.

If these instructions are strictly followed the purulent discharge will become scanty at the end of the first day, and on the third it will be replaced by a thin, gleety discharge, which also disappears in a couple of days. While this watery discharge lasts I usually administer only one injection daily. I find that the first injection frequently causes pain, which is not so much complained of afterwards. I, therefore, in a few cases give the first injection very much diluted—one in twenty, afterwards using one in fifteen. It is necessary to see that the sulphurous acid is fresh and good before it is diluted to the required strength.—*W. D. Wilson, M. B., in London Lancet. Canada Med. Record.*

THE ADMINISTRATION OF CHLOROFORM.

The *Gazette des Hopitaux*, at the end of the *resumé* of the prolonged discussion on this subject which has just terminated at the Academie de Médecine, furnishes the following account of the rules of procedure observed by a *collaborateur* who has been much employed with constant success, in the administration of chloroform during the last ten years:

1. The compress is to be preferred to all other means. A

handkerchief is to be had everywhere, and alarms the patient less than anything else.

2. Fold the handkerchief into the form of the mouth of a horn, and keep it closely pressed against the point of the nose; but only pour the chloroform on the part of it which is not directly in contact with the skin.

3. Its application should be intermitted, but this need not be done in the precisely regulated manner recommended by Professor Gosselin.

4. Give very little chloroform at the commencement, in order to accustom the patient to it and prepare him for the feeling of suffocation. Then, when the first inspirations are over, pour on the chloroform very often, otherwise much time will be lost and complete anesthesia obtained only with difficulty.

5. Before making the application take care that no article of dress constricts the patient, removing even the string of a cap.

6. Expose the epigastrium, and from the very commencement keep the eye upon it, and constantly watch the respiration, without caring about the pulse.

7. Always have a forceps within reach.

8. As soon as the respiration becomes noisy and stertorous, remove the compress and allow the patient to breathe fresh air for a time.

9. When respiration is arrested, seize the tongue with the forceps and draw it out, and immediately commence artificial respiration. If the respiration is not established after a few seconds, place the head low, forcibly flagellate the cheeks, keep the tongue out, and continue the artificial respiration for five, ten, fifteen, or even twenty minutes, if necessary.

10. When the respiration is noisy, pass into the back of the throat a sponge mounted on a forceps, in order to remove the mucosities existing there, as they frequently do in patients suffering from colds.

11. There is but one contra-indication to the employment of chloroform—namely, advanced phthisis. Affections of the heart are not contra-indications.

12. Hysterical subjects should be distrusted.

13. Alcoholic subjects are very long and difficult in being brought under the influence of chloroform, but they may take it without danger.—*Medical Times and Gazette.*

TREATMENT OF INFANTILE DIARRHŒA BY POWDERED CHARCOAL.

Dr. Guerin, in referring to a recent communication to the *Academie de Médecine*, made by Bouchardat, remarks that for a long time he has been in the habit of combating infantile diarrhœa by mixing the milk in the sucking-bottle with charcoal

powder. He usually adds half a teaspoonful of the powder to one bottle of the milk. The infants take the milk readily, and in a few days the greenish stools of the little patients change to a dark yellow, while their consistence becomes increased. In addition to the admixture of powered charcoal, the milk is diluted by one-half or one-third of its bulk of sugared water. He has frequently seen intractable summer complaints yield in a few days to this treatment.—*Canada Med. Record.*

A MARVEL OF SURGERY.

Dr. Roswell Park writes from Prague: "I have had the pleasure of a rather extended interview with a patient whose larynx and epiglottis Prof. Gussenbauer removed over two years ago. Six weeks after the operation, he began to wear part of the artifical larynx, and, after accustoming himself to this, he gradually learned how to introduce and use the reed which takes the place of the vocal cords. This apparatus was made for him by Rothe, who has also done some work for the Reese Hospital. The patient is a riding teacher, is reputed the best rider in Prague, is busy from morning to night, talking all day, and suffers not the slightest inconvenience or pain. His voice is, of course, very monotonous, but his enunciation is excellent, his speech perfectly intelligible, and he eats and drinks with perfect facility. Three intralaryngeal operations had been previously made, before Gussenbauer attempted his feat. This case is said to be the best living example of what the art of the surgeon and the mechanician can accomplish for such a terrible disease as cancer of the larynx.—*British Medical Journal.—Cincinnati Lancet and Clinic.*

DEATH OF PROF. F. M. BALFOUR.

We learn from the *Medical Press* that this quite young English scientist is dead. The circumstances surrounding his death are particularly mournful. He had gone for a few weeks' relaxation to Switzerland, and while climbing the Alps with a guide for companion is supposed to have slipped and fallen, at any rate, his dead body and that of the guide have been discovered, but the particulars of the accident must of necessity forever remain unknown. The late professor, though but thirty years of age, was the most distinguished graduate Cambridge has had since the time of Clifford, and in his own special field of embryology he was without a rival. The work he has already accomplished is a vast addition to our knowledge, and, thanks to his indefatigable industry, is embodied in a connected work which renders it accessible to every student. It will be impossible for Cambridge, even out of the rich store of distinguished scientists numbered among her own

graduates, to replace the professor thus prematurely deceased, and the loss experienced also by the world of English science is one that cannot at present be made good. Mr. Balfour's work, however, is his best memorial, and in the influence exerted by it on future progress he will continuously, though dead in body, be alive and active in spirit, to the unutterable gain of the science he so loved and served.—*Cincinnati Medical News.*

MORPHIA HYPODERMICALLY AS AN ADJUVANT TO CHLOROFORM.

Dr. Andrew S. Currie, in the *Lancet*, calls attention to a paper on this subject in the *Practitioner*, by Dr. Alexander Crombie, which he considers has not received enough attention. Dr. Crombie states that in 600 cases, in only one was there any evidence of asphyxia, and in that instance the usual precautions had been neglected. The method employed is very simple, and consists in the hypodermic injection of morphia immediately after beginning the administration of chloroform. I have recently employed a modification of this plan with the greatest comfort to the patient and to myself. About ten minutes before administering the chloroform I inject a full dose of the liq. morphiæ hypod. (B. P.) The chloroform is freely sprinkled on a piece of lint folded twice, and one dose is, as a rule, sufficient to induce complete anæsthesia.

Dr. Currie says that having, a day or two ago, to open a large abscess of the thigh, in the case of a lady who has been an invalid for the last ten or twelve months, I induced anæsthesia easily and rapidly in this way. The patient, who has repeatedly had chlorform administed for confinement, tooth extraction, etc., assured me that she had never before taken it with such a total absence of all feeling of discomfort. There was no sensation of suffocation and no trouble with after-sickness, which had on previous occasions proved troblesome.—*Med. and Sur. Reporter.*

STCHEGLOFF ON FARADISATION OF THE SPLEEN IN INTERMITTENT FEVER.

The author (*Trans. of the Caucasian Med. Soc.*, 1881, No. 3) relates a case in which six faradaic applications of twenty minutes long each, at intervals of three days, produced diminution of the splenic tumour, as well as rapid improvement of general nutrition of the patient. As the fever never reappeared, Dr. Stchegloff concludes that the cure was radical. [A report of forty-two cases of intermittent fever, successfully faradised by Dr. Schroeder, of St. Petersburg, may be found in the London *Med. Rec.*, October, 1880, p. 409.]—*Canadian Med. Jour.*

Editorial Department.

ARMY MEDICAL MUSEUM AND LIBRARY.

We heartily endorse the action of The New Orleans Medical and Surgical Association in urging upon Congress the desirability of establishing and maintaining, separate and distinct from the Congressional Library, the Army Medical Museum and Library.

From the unfortunate civil war there has arisen at least one monument to the medical profession, which can be contemplated with pride by North and South, and we feel that the unanimous sentiment throughout the country will unite in the appeal that its identity be not lost.

Rooms N. O. Medical and Surgical Association,
October 14th, 1882.

Whereas, It has come to our knowledge that it is contemplated to remove the Library and Museum of the Surgeon General of the United States Army to the Capitol building at Washington; and

Whereas, The medical profession throughout the country feel a justifiable pride in the said Library and Museum, as being the largest and most complete of their kind in the world; and

Whereas, The separation of the Library and Museum from each other, and their removal from the immediate control of the members of that profession, by whose zeal and liberality alone they have been accumulated; and

Whereas, The continued publication of the Index Catalogue of said library, depends upon the constant supervision of the Library by those who have acknowledged ability in this kind of work; and

Whereas, We regard the continued publication of the *Catalogue and Index Medicus* as a matter of the utmost importance to the medical profession throughout the country and the world,

Resolved, That the New Orleans Medical and Surgical Association urge the delegation of the State of Louisiana in both houses

of Congress to do all in their power to obtain a sufficient appropriation from Congress to secure the erection of a fire proof building better adapted for the preservation of the Museum and Library and the successful management of the same, thereby rendering certain the continued publication of the *Catalogue of the Library and the Index Medicus.*

DAN'L C. HALLIDAY, M. D.
S. M. BEMISS, M. D.
S. S. HERRICK, M. D.

SUPPLEMENTING NATIONAL BOARD OF HEALTH BULLETIN.

We republish with pleasure the subjoined circular.

It is highly probable that many members of Congress who voted to cut off the appropriations for carrying on the work of the National Board of Health, had no just conceptions of the importance and magnitude of the work which they succeeded in arresting.

However, we may endeavor to account for the action of our legislative solons, the result has been a serious and lamentable damage to science as well as to medical and sanitary progress.

Our brethren in Europe have appreciated these facts, and have joined with the profession of this country in deploring this step, so downward—so much in the direction of those regretable days when all knowledge of the presence of infectious diseases was left to rumor, and all precautions against their introduction were relegated to the shot gun, under the orders of the constable, town mayor, or what is sometimes worse than all, those political boards of health which may have been creatures of the most detestable tricksters who disgrace our kind.

[From the Sanitary Engineer of Oct. 12, 1882.]

A NEW FEATURE.

When the announcement that the Congress of the United States had refused to grant the appropriation needed to defray the expenses of continuing the publication of the Bulletin of the National Board of Health reached us, we were in Europe. The expressions of regret at this action we there heard, and the complaints from all parts of this country that have since reached us from those capable of appreciating the value of these records, induced us to propose to the National Board of Health

that we would give space to print the most important information heretofore published in the Bulletin, if the Board would place at our disposal such data as would enable us to make the necessary compilations.

This offer having been accepted, we have provided for a permanent increase in the size of *The Sanitary Engineer*, and one page at least in each issue will be devoted to the purpose of continuing, so far as we are able, the work hitherto performed by the Bulletin.

It may be well to state that in taking up this new feature, our purpose is first to make this journal of more value to its readers; and secondly, it seemed to us desirable to keep together the corps of correspondents of the Board, many of whom might be unwilling to continue sending information not likely to be promptly available for public inspection and comparison. This work would have been begun sooner but for the fact of our absence from the country, before alluded to. It is proposed to develop this department as rapidly as the interest in it is made manifest.

Meanwhile, we ask the indulgence of our readers for a few weeks, as it is hardly to be expected that our first attempt will show as full and complete information as we hope to give.

MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION AT INDIANAPOLIS.

INDIANAPOLIS, IND., Oct. 20, 1882.

The American Public Health Association closed its tenth session last night, after one of the most interesting meetings of its existence. Perhaps a synopsis of its proceedings may be of interest to your readers.

Although not as large as some of the previous meetings, this was attended by members from thirty different States, representing all the learned professions—men who met in council for the purpose of discussing the greatest of all humanitarian objects—that of preventing disease.

The first day's session was devoted mainly to the business of the Association, and resolutions were adopted calling upon Congress to make the necessary appropriations for the maintenance of a national musuem of hygiene, whose purpose shall be the exhibition of the

by a collection of publications, articles, models, drawings, etc., illustrating defects and improvements in foods, in water supply, bedding, clothing, in marine architecture, house and hospital construction and furniture, apparatus for heating, illuminating, ventilation, etc., for physical exercise and culture, and whatever else tends to the pseservation of health and the prevention of disease. An appropriation of $7500 has already been made by Congress for the purpose of making preliminary preparations, and the Surgeon General of the Navy has issued a circular soliciting contributions for the museum. It needs but a glance at its objects to perceive that a museum of this nature, where those interested in sanitation can have placed before them for examination and where they may handle and study all the different devices and inventions for the preservation of health, is destined to be of the greatest utility to every inhabitant of this country.

The following important amendment to the constitution was adopted:

Article 3 was changed to read as follows: "The members of this association shall be known as active and associate. The executive committee shall determine for which class a candidate shall be proposed. The active members shall constitute the permanent body of the association, subject to the provisions of the constitution as to continuance of membership. The active members shall be selected with reference to their known zeal and devotion to sanitary science, and associate members with reference to their general interest only in sanitary science. Associate members shall not be entitled to vote."

It will thus be seen that

THE ACTIONS OF THE ASSOCIATION

are confined to those who from their practical knowledge are competent to decide questions in sanitation. There are always many persons who are interested in the proceedings of the association in a general way, and would be glad to attend its deliberations and receive reports of its proceedings. For the benefit of this class, many of whom join and attend but one session, an associate membership is provided. In thus limiting the active membership to persons who have a recognized standing and experienced in sanitary matters, the association will command more respect and more weight will be given to its proceedings.

SOME OF THE SUBJECTS DISCUSSED.

Dr. Horatio R. Storer, of Newport, R. I., read a paper on "The Newport System of Sanitary Protection," showing the immense benefit that resort has derived from proper efforts at sanitation.

Dr. Thad. M. Stevens, of Indianapolis, read a paper on the History of Health work in Indiana, explaining the organization of the State Board of Health and its work.

AT THE EVENING SESSION

addresses of welcome were delivered by Mayor D. W. Grubbs and Gov. Porter, and the president read his annual address. President R. C. Kedsie paid an eloquent tribute to the memory of the last president of the association, the late Dr. C. B. White, of your city.

At the second day's session papers were read by Dr. J. R. Smith, U. S. A., on the relative size of the liver and spleen, and the normal temperature in Texas cattle; by Dr. Samuel W. Abbot, of Wakefield, Mass., on "Uses and abuses of animal vaccination;" by Dr. T. P. Wilson, of Ann Arbor, Mich., on "Life on wheels," being a protest against the bad ventilation and unsanitary condition of railroad cars; by Dr. James E. Reeves, of West Virginia, on "Sanitary Progress" in that State; by Dr. A. N. Bell, of New York, on "Sanitary Inspection; by Dr. B. Cogshall, of Flint, Mich., on the "Contagiousness of tubercular consumption." The papers of Drs. Smith, Abbot and Bell elicited warm and instructive discussion upon the subjects treated, and the conclusions arrived at could well be learned by everyone, but space forbids their elaboration.

At the evening session Dr. J. L. Cabell, president of

THE NATIONAL BOARD OF HEALTH,

presented a report giving in full the work accomplished by that body. The report was very long, giving the operations of the board in all their details of aid to local and State boards, the maintaining of inspections in the Mississippi valley, the inspection of immigrants with reference to the protection of the people of the United States from the introduction of small-pox by said immigrants, and the stamping out of that disease in the Northwest after it had been so introduced; the large number of investigations made in regard to impure air, adulterated foods, the causes and prevention of certain diseass and the prevention of panic, and the restoration of confidence throughout the entire Mississippi valley in 1879 and subsequent years.

The paper elicited an animated discussion, showing an entire unanimity of feeling in favor of legislation extending the usefulness and scope of the work of the National Board, and the following resolutions were unanimously carried:

"*Resolved*, That this association has listened with great interest and satisfaction to the analysis and detail of the work accomplished by the National Board of Health, as furnished by the President of the Board; and that we commend its careful

perusal to all upon whom, as legislators or sanitarians, devolves the care of the public health, not only as showing the scope of its faithful and efficient administration, but as suggesting and illustrating the permanent demand there is for a sustained national organization of this general character.

"*Resolved*, That there is a work to be done by such a board which cannot be done by any local or State board, and which is not, and cannot be, adequately represented or fulfilled by any other branch of the national service, as illustrated in its inspections and inquiries into special conditions so serious as to be national rather than local; in its dealings with yellow fever and small-pox; in its plans for consular health bills from foreign ports and refuge stations for a wide coast range; in its internal care over river and railroad transportation; in its investigations into malaria and other wide-spread causes of disease; in its valuable scientific and practical inquiries into causes and courses of epidemics; in its comparisons of statistical facts, and in its widespread distribution of information most intimately affecting the vital conditions of our whole population.

"*Resolved*, That, while each State and each division of national service may contribute much aid in their respective spheres, we view with regret any curtailment of the functions of a board so constituted as to represent and unify the health interests of the entire nation.

"*Resolved*, That we counsel the National Board to continue all the work possible under its present restricted appropriations and await with confidence the extension of its powers of usefulness, and that appreciation of its work for the past and its necessity for the future, which can but result from a calm and careful estimate of the safeguards requisite for national health and prosperity.

"*Resolved*, That the advisory council of this association, representing, as it does, the sanitarians of the various States, be directed to use all laudable efforts to place before the President of the United States and the Congress at Washington, and before members of Congress in their several States, the very great importance to the welfare of this country of such action by the United States government as shall increase to the fullest extent, the means and powers of usefulness of the National Board of Health.

"*Resolved*, That so long as the United States government confines its maritime and inland quarantine service to the aiding of State and local Boards of Health, it is essential, for the best results, that such aid shall be through channels most generally acceptable to State and local Boards of Health, whose co-operation is requisite; and we sincerely believe that the National Board of Health is the channel most generally acceptable.

"*Resolved*, That the confining the work of the board to

cholera, yellow fever and small pox, is believed to be in the highest degree injudicious. It should have the full powers for investigation of all preventable diseases conferred upon it by its constituting act, and be granted the funds necessary for this purpose, and this should be done irrespective of the action which may be taken with regard to quarantine.

"*Resolved*, That the members of the American Public Health Association hereby pledge their individual co-operation in endeavoring to secure such national legislation as shall insure to the National Board of Health such material aid as may be needed in carrying out, with the greatest efficiency, all measures pertaining to the interest of public health.

"*Resolved*, That the president, vice-president and secretary of this association be charged with the duty of securing the complete presentation to the authorities at Washington of the full influence of this association in favor of properly and permanently sustaining the National Board of Health.

"*Resolved*, That the address of the president of the National Board of Health, together with these resolutions, and such other papers or resolutions as relate to this subject, be printed at once in pamphlet form, to the number of one thousand."

AT THE THIRD DAY'S SESSION

instructive papers were read:

On the laws requiring medical men to report cases of infectious diseases and deaths to the authorities, by Dr. O. M. Wight, of Detroit, Mich.

On sanitary government, by Hon. Erastus Brooks, of New York.

On the relations of health associations to the practice of medicine, by Dr. J. J. Speed, of Louisville, Ky.

On negro mortality in Memphis, by Dr. G. B. Thornton, of that city.

On an epidemic of small-pox by direct importation from Germany, by Dr. A. W. Cantwell, of Davenport, Iowa.

On the influence of immigration into the United States at Port Huron, Mich., on the public health of the West and Northwest, by Dr. H. R. Mills, of Detroit.

On the cremation of household refuse and excreta, by Col. J. M. Keating, of Memphis.

On the sanitary, physical and educational advantages of open areas in large cities, by Dr. T. Newhall, of Providence, R. I.

A review of the titles of the papers read will show the large number of questions important to the preservation of public health, which were read and discussed; questions embracing many points whose elaboration is sure to prove of inestimable benefit to the people of the United States in showing them how to live, and to avoid disease.

The association adjourned at the end of the third day's session to meet in 1883 at Detroit, Mich.

In the intervals between sessions, meetings were held of the Sanitary Council of the Mississippi valley, during which matters relating to the health of the valley were discussed, and the action of the Health Association in regard to the National Board of Health was indorsed, and the co-operation of the council promised.

This body adjourned to meet in April next at Jackson, Miss. —*N. O. Times-Democrat.*

Reviews and Book-Notices.

The Illustrated Quarterly of Medicine and Surgery. Edited by Geo. Henry Fox, M. D., and Frederick R. Sturgis, M. D. Vol. I., No. 3, qto. N. Y.: E. B. Treat. July, 1882.

The first two numbers of this new publication were noticed at our hands some months ago. The present number contains the following articles:

(1.) Duodenal Ulcer (one colored illustration). By Francis Wayland Campbell, M. D.

(2.) A New Method of Closing Urethral Fistula (14 wood cuts). By Charles McBurney, M. D. Several operations were required, including the formation of an artificial fistula, to direct the flow of urine, and its subsequent closure.

(3.) A Case of Congenital Keratoma (Ichthyosis), with two colored illustrations. By Geo. G. Whelock, M. D. The child fortunately died in a few hours.

(4.) Papilloma of Pharynx Removed and Cured (one colored plate). By Jno. O. Roe, M. D. The affection returned, and after the second operation cure was completed by application of fuming nitric acid, and afterward chromic acid.

(5.) Gummous Iritis (two cases, with colored illustrations). By F. R. Sturgis, M. D. A rare syphilitic affection.

(6.) Therapeutic Uses of Rubber Tubing (six wood cuts). By W. M. Chamberlain, M. D. The advantages of this substance for irrigation and for raising or lowering the temperature of any part of the body are clearly shown.

(7.) Elastic Tension in the Treatment of Pott's Disease

(eight wood cuts). The tension is effected by gum-elastic cord, applied as described and illustrated.

The clinical character of the publication is maintained in the present number, as all except the sixth article are descriptive of actual cases. S. S. H.

Manual of Dental Surgery and Pathology. By Alfred Coleman, L. R. C. P., F. R. C. S., Exam., L. D. S., etc.; Senior Dental Surgeon and Lecturer on Dental Surgery at St. Bartholowmew's Hospital and to the Dental Hospital of London, etc. Thoroughly revised and adapted to the use of American Students and Practitioners. By Thomas C. Stellwagen, M. A., M. D., D. D. S., Prof. Physiology, Philadelphia Medical College. 8 vo., pp. 408. Philadelphia: Henry C. Lea's Son & Co. 1882. [Sold by Hawkins, 196½ Canal st. Price in muslin, $3 25.]

The great advance made in the science and practice of dental surgery during the present generation is illustrated by special works on the different branches of dental anatomy and physiology, dental surgery and pathology, dental mechanics, etc., which have superseded the single work that formerly comprehended the whole range of knowledge deemed necessary for the practitioner. The present work includes not only the ordinary affections requiring operative procedures at the hands of the dentist, but several treated in works on general surgery, such as salivary calculus, necrosis of the jaws, cicatrices closing the jaws, diseases of the antrum, etc.; which indicates the author's presumption that dentists should be educated beyond the simple requirements of relieving tooth-ache, preserving the teeth, and replacing them when lost.

Many additions are incorporated by the American editor into the original text; besides, whole chapters are added on Selection of Instruments and on Fitting Artificial Crowns to Roots of Natural Teeth. This last is an important contribution to conservative dental surgery, the principle and practice not being new, but the methods are improvement over the old practice. One method consists, briefly, in fastening the new crown to the old root by a ferrule of gold, instead of the usual pivots of wood or metal.

The volume is illustrated by 314 wood cuts, 112 of which have been added in the American edition for aiding in the description of instruments and appliances. The additions of the American editor amount to about 100 pages, besides an enlargement of the original page. The whole, therefore, makes a very useful and creditable volume.

S. S. H.

Cerebral Hyperæmia. Does it exist? A consideration of some of the views of Dr. William A. Hammond. By C. F. Buckley, B. A., M. D., formerly Superintendent of Haydock Lodge Asylum, England. Square 16mo., pp. 129. New York: G. P. Putnam's Sons. 1882.

This little volume is a criticism of a recent monograph of Prof. Hammond, entitled "Cerebral Hyperæmia." The writer accuses Prof. Hammond of contradictions and inconsistencies, and of magnifying the subject of cerebral Hyperæmia so as to make it include a variety of disorders, even its opposite, anæmia. He shows that the symptoms which Dr. Hammond declares characteristic of hyperæmia, fit equally well morbid states of other organs, particularly the stomach; and that some of his remedies for the supposed condition of the cerebral circulation actually increase the flow of blood to the brain.

Prof. Hammond's offense seems to have grown out of a rather common malady among ambitious men, commonly known as *cacoëthes scribendi*, and his critic evidently believes that the case requires caustic applications. His closing paragraph will illustrate the mode of treatment.

"If extravagant unreason in medicine can go any further, I am unaware of the fact and incapable of comprehending it. And if from such evidence as is here adduced—while I believe strict justice has been done the monograph—the reader can convince himself that such a disease as 'cerebral hyperæmia,' in the sense here referred to, has any existence outside Dr. Hammond's imagination, his discernment and reasoning faculties are of an order to which I am a stranger."

A critical examination of Dr. Buckley's book discovers that his language is not always grammatical, that the punctuation is very faulty, and that typographical errors are too common to sustain the reputation of the publishing house.

S. S. H.

Clinical Lectures on Diseases of the Nervous System. By Thomas Buzzard, M. D., Lond., F. R. C. P., London, Physician to National Hospital for the Paralyzed and Epileptic. 8vo., pp. 466. Philadelphia: P. Blakiston, Son & Co. 1882. [Sold by Armand Hawkins, No. 196½ Canal st., New Orleans. Price in Muslin, $5 00]

Some of the lectures of this volume were delivered at the National Hospital for the Paralyzed and Epileptic; others were not delivered to a class, but have been written in the same style, in order to preserve uniformity. The work is not a systematic treatise on nervous diseases; in fact its scope is quite limited, so that a few subjects are treated quite exhaustively. Thus tabes dorsalis occupies ten lectures, and its relations with tendon-reflex the greater part of the two opening chapters besides. Infantile paralysis and acute poliomyelitis in adults, form the subject of two lectures. The remaining eleven lectures of the twenty-five are devoted to as many diseases, though different forms of paraplegia occupy three lectures.

Another noticeable feature in the work is the prominence given to description of symptoms and omission of therapeutic consideration of most of the maladies.

On the whole, therefore, we cannot consider the book adapted to the needs of more than a small fraction of medical readers. Those who have time to read large books on small subjects are generally unable to purchase as many as would be needed of this sort, while those who are able to purchase would not find time to read them. The only way to make such books available to the wants of the profession, is to publish them in the cheapest possible style. Medical books containing as much matter as this are sold for 75 cents unbound, or for $1.00 in muslin binding.

In these remarks, we speak for the purchasers and readers of medical books. Publishers bring out books for profit, and it may be presumed that they generally understand their business and need no advice from purchasers. If the Messrs. Blakiston have acquired the art of getting a large price for greatly diluted works, they deserve the praise of the typographical fraternity, paper-makers, etc., and the manufacturers

of bitters, elixirs and other bulky remedies might learn of them something greatly to their advantage. S. S. H.

A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M. D., Professor of Diseases of the Skin in the Hospital of the University of Pennsylvania, etc., etc.; third edition revised and enlarged. 8vo. pp. 685. Philadelphia: J. P. Lippincott & Co.; New Orleans: Armand Hawkins. [Price, $6 00.]

The recent rapid advancements in the study of Dermatology and the developments made by the aid of the microscope necessitate the publication of new and enlarged treatises upon this important branch of medical science. The author of the present treatise is too well known by his previous works to need an introduction to the medical public, and a book from his pen is sufficient guarantee of its value. So true is this that the present edition follows in a little over a year after the publication of the second.

The subjects treated of are divided into nine different classes, based upon the nomenclature now universally adopted by dermatologists, wherein the cause and not the physical appearance of the disease gives it its name. The book is divided into two parts. Part I. is devoted to "general considerations," and therein we notice quite an improvement, the first chapter being entirely new and embracing all the recent microscopic discoveries in the anatomy and physiology of the skin. Part II. is devoted to the consideration of special diseases. The etiology, pathology, diagnosis and treatment of each of the one hundred and thirty diseases comprised in the study of dermatology are treated in a thorough, terse and intelligent manner, the author aiming to teach from his own individual experience and observations, while at the same time giving due consideration to the opinions of other observers.

As a reference book for the general practitioner, and a text book for the specialist, the work meets every requirement, and is one of the best upon this class of diseases.

The anatomical and pathological illustrations are admirably executed, and the entire book is gotten up in Lippincott's usual good style. L. F. S.

The Physician Himself, and what he should add to the strictly scientific. By D. W. Cathell, M. D., late Professor of Pathology, College of Physicians and Surgeons, etc. Second edition, carefully revised and enlarged. 8vo., pp. 208. Baltimore: Cushings & Bailey. Price, $1 25.

It is an undisputed fact that physicians as a rule are little acquainted with business matters, and with very few exceptions have no business tact. The book before us, besides being a valuable guide to medical men in teaching them how they should conduct themselves so as to gain and retain a practice, also endeavors to show by what honorable means that practice can be made profitable.

To the young practitioner, beginning his professional career the book is full of valuable suggestions and wise advice, and none such can afford to be without it, as the precepts therein contained are never learned in the lecture room or from text books. To others who have already established a practice the work will prove interesting and instructive, containing many suggestions which will be useful in showing how a physician with the necessary *savoir faire* and business tact succeeds better than his neighbor who does not possess these qualifications.

The precepts laid down by Dr. Cathell are such as, if studied and followed out in our relations with our confréres and with our patients, cannot fail to bring reputation and success.

On the whole, this book is just what every physician needs, to be kept in a convenient place where he can easily lay hands on it, and read and re-read it until its contents are as familiar as the decalogue.

The profession is indebted to the author for the valuable service he has rendered in writing and publishing such a book.

L. F. S.

Books and Pamphlets Received.

The Antiseptic Treatment of Wounds after Operations and Injuries. By W. T. Briggs, M. D., Professor of Surgery, Medical Department of University of Nashville and Vanderbilt University. Reprint from Nashville Journal of Medicine and Surgery.

Genius Resistless. An Ode. A Tribute to Jenner and Pasteur. By J. J. Caldwell, M. D.

Fifth Announcement of the United States Medical College in the City of New York, Session 1882–3.

Some of the Simple Methods of Performing Hystero-Trachelorrhaphy. Reprint from Obstetric Gazette.

On the Nomenclature and Classification of Diseases of the Skin. By L. Duncan Buckley, M. D. Reprint from the Archives of Dermatology, Vol. vii, October, 1881.

The Presence of Micrococcus in the Blood of Malignant Measles. Its Importance in Treatment. By John M. Keating, M. D. Reprint from the Philadelphia Medical Times, August, 1882.

Nervous Control or Equilibration. By James T. Searcy, M. D., Tuskaloosa, Ala. Extracted from the Transactions of the Medical Association of the State of Alabama, for 1882.

Forty-Second Annual Announcement and Catalogue of the Missouri Medical College, Session of 1882–3.

Medical College of Virginia—Forty-fifth Session, 1882–3.

Treatment of Consumption, Indicated by the Discoveries of Koch and others of its Parasitic Origin. By M. L. James, M. D., Richmond, Va.

Medical Department of the University of Nashville and Vanderbilt University, Announcement of Lectures, Session of 1882–3.

Report on Surgery. By W. O. Roberts, M. A., Louisville, Ky. Reprint from the *American Practitioner*, June, 1882.

Michigan College of Medicine, Detroit, Mich. Announcement for Session of 1882–3.

Diphtheritic Ulceration of the Air Passages, and its Relation to Pulmonary Phthisis. By John Mackenzie, M. D., of Baltimore. Reprint from the Transactions of the Medical and Chirurgical Faculty of the State of Maryland, April, 1882.

Class Work of the Pupils of the Illinois Asylum for Feeble-Minded Children for the year ending June 30, 1882.

An Ephemeris of Materia Medica, Pharmacy, Therapeutics and Collateral Information.

Combined Intra-Uterine and Extra-Uterine Twin Pregnancy—With an Analysis of Twenty-four Cases, and full Extracts from the most important cases. By B. B. Browne, M. D., Baltimore, Md. Reprint from Vol. VI Gynecological Transactions, 1882.

The Separate System of Sewerage. By Geo. E. Waring, Jr. Reprint from the American Architect, March and April, 1882.

Rawley Springs. Harrisonburg, Rockingham county, Va.

The Disease of the Scythians (Morbus Feminarum) and Certain Analogous Conditions. By William A. Hammond, M. D., Surgeon General U. S. A.

Puerperal Eclampsia, successfully treated with Veratrum Viride, with cases. By N. L. Guice, M. D., Fayette, Miss. Reprint from Transactions Mississippi State Medical Association, 1882.

On the Continuous Inhalation of the Vapor of Slacking Lime in the Treatment of Membranous Laryngitis. By Eugene F. Cordell, M. D. Reprint from Maryland Medical Journal, September, 1882.

Annual Announcement of the Toronto School of Medicine. Fortieth Session, from October 1, 1882–3.

The Early Diagnosis of Chronic Bright's Disease. By T. A. McBride, M. D., New York.

Stricture of the Rectum Treated by Electrolysis. By Robert Newman, M. D., of New York. Reprint from New England Medical Monthly, September, 1882.

The Application of Pressure in Disease of the Uterus, Ovaries and Peri-Uterine Structures. By V. H. Taliaferro, M. D., Atlanta, Ga. Reprint from the Atlanta Medical Register, 1882.

Abortive Treatment of Mammary Abscesses, and the Cure of Fissured Nipples by Means of a New and Effectual Compress. By Geo. H. Noble, M. D., Atlanta, Ga. Reprint from the Atlanta Medical Register, October, 1882.

Congenital Paralysis of the Sixth and Seventh Pairs of Cranial Nerves in an Adult.

Cataract Extraction with Iridectomy in an Infant Six Months old. By Julian J. Chisholm, M. D., Baltimore. Reprint from the Archives of Ophthalmology. Vol. XI, September, 1882.

Second Annual Report of the Astronomer in the Observatory of Yale College, 1881-2.

Meteorological Summary—September.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.031	79.8	83.0	S. E.	.41	Mean Barometer, ———.
2	30.038	81.4	75.7	S. E.	.01	Highest Barometer, 30.156, 19th.
3	30.075	80.0	78.3	East.	.02	Lowest Barometer, 29.614, 9th.
4	30.063	81.5	76.7	S. E	.....	Monthly Range of Barometer, .542.
5	30.058	83.2	69.3	East.	....	Mean Temperature, ——.
6	30.003	82.7	67.0	N. E.	.....	Highest Temperature, 89.0, 6th.
7	29.907	82.4	71.0	S. E.	....	Lowest Temperature, 61.5, 23d.
8	29.815	77.1	87.3	East.	.91	Monthly range, ——
9	29.683	75.4	76.3	N. E.	.....	Greatest daily range of Temperature,
10	29.844	76.5	64 3	North	.....	16.3, 23rd.
11	29.977	77.2	64 7	N. W.	.....	Least daily range of Temperature,
12	30.051	76.5	60.0	East.	.....	6.5, 9th.
13	30.109	77.2	63.7	East.	.....	Mean of Maximum Temperature, 83.0.
14	30.110	76.0	77.7	East.	.—	Mean of Minimum Temperature, 71.6.
15	30.061	79.0	76 3	East.	.....	Mean daily range of Temperature, 12.3.
16	30.055	80.2	63.0	S. E.	.....	Prevailing Direction of Wind, E.
17	30.073	80.3	74.0	East.	.....	Total movement of wind, 4680 miles.
18	30.110	79.8	81.0	East.	.....	Highest Velocity of Wind and Direc-
19	30.125	80.0	74.7	East.	.....	tion 27 S. E.
20	30.088	79.3	76.3	S. E.	.....	Number of Clear Days, 17.
21	30.056	79.5	73.3	North	.....	Number of fair days, 10.
22	30.096	72.0	69.3	North	....	No. of cloudy days on which no rain fell, 1
23	30.092	68.8	49.0	North	.....	Total No. of days on which rain fell, 7.
24	30.025	70.8	55.3	North	.....	COMPARATIVE TEMPERATURE.
25	30.005	74.7	67.3	N. E.	.....	1873..... 84.2 | 1878..... 83.5
26	30.007	75.2	63.7	N. E.	.....	1874..... 83.9 | 1879..... 81.0
27	29.939	74.4	63.0	East.	.....	1875..... 79.3 | 1880..... 81 3
28	29 952	76.5	69.7	S. E.	.....	1876..... 82.2 | 1881..... 82.8
29	30.037	76.0	81.3	South	.—	1877..... 83.1 | 1882..... ....
30	30.077	74.7	85.3	S. E.	.24	COMPARATIVE PRECIPITATIONS.
	.....	....	....	.....	.....	(Inches and Hundredths.)
Sums.	.....	...	....	.....	.....	1873..... 8.30 | 1878..... 5.31
Means	30.019	77.6	71.2	East.	1.59	1874..... 4.82 | 1879..... 10.44
						1875..... 8.61 | 1880..... 4.60
						1876..... 4.44 | 1881..... 4.21
						1877..... 2.54 | 1882..... ....

H. B. BOYER, *Pvt., Sig. Corps, U. S. A.*

Mortality in New Orleans from September 16th, 1882, to October 7th, 1882, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
September 16	0	6	14	2	1	74
September 23	0	12	14	2	1	97
September 30	0	15	10	3	4	96
October 7	0	13	7	2	1	95
Total.....	0	46	45	9	7	362

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

DECEMBER, 1882.

ORIGINAL COMMUNICATIONS.

The Responsibility of Criminal Lunatics.

By S. S. HERRICK, M. D.

[Read before the Orleans Parish Medical Society. Publication authorized.]

The literature growing out of the assassination of President Garfield, during a little more than a year, has attained extraordinary proportions. Quite lately the trial of the assassin Guiteau has evoked small volumes from two medical men,* the one a neurological expert, the other an alienist of more than twenty years' experience. Each one of these writers naturally regards the criminal Guiteau from the standpoint of his own specialty; by the medical standard both pronounce him of unsound mind, and therefore irresponsible positively in a moral sense, and properly in a legal sense, for his crime.

Dr. Beard draws a parallel between the popular excitement of 1692, baseless and perverted to the perpetration of deeds which have made the actors infamous, and that of 1881–2, when fifty millions of people are shocked by an aimless

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* *The Psychology of the Salem Witchcraft Excitement of* 1692 *and its Practical Application to our Own Times.* By George M. Beard, A. M., M. D., Member N. Y. Neurological Society, Author of *Neurasthenia*, etc. 16 mo., pp. 112. N. York: G. P. Putnam's Sons. 1882.

Two Hard Cases: Sketches from a Physician's Portfolio. By W. W. Godding, M. D., Superintendent Govt. Hospital for Insane, Washington, D. C 16 mo., pp. 257. Boston: Houghton, Mifflin & Co. 1882.

atrocity, and without reflection demand the blood of the murderer. As the victims at Salem were the last who have suffered for the crime of witchcraft, though belief in that delusion is still extensively entertained; so he believes that Guiteau is the last, or nearly the last, criminal lunatic who will suffer the extreme penalty for murderous acts.

Dr. Godding was in attendance on the trial during eight weeks of the ten consumed in reaching the verdict, and witnessed the overwhelming effect of universal horror at the crime, and detestation of the criminal, which blinded spectators and jury alike to the proofs of the wretch's mental unsoundness exhibited by his own actions in their presence. If Dr. Godding had wished to draw a parallel, he might have found suitable material on the spot, in the two most celebrated criminal trials of this country's history, both for the murder of Presidents; in which Mrs. Surratt and Guiteau severally were sacrificed to appease the popular vengeance.

The last assassination illustrates two abuses which superabound in our republican system—office-seeking and liberty of lunatics. The former is a political vice, which is not a proper subject for consideration here; the latter is a suitable study for medical men, but I propose to discuss it now rather as a judicial than a medical question, believing that the solution requires important modification of the legal responsibility of insane malefactors.

While assenting to the idea of Guiteau's mental unsoundness, and that he was a fit subject for a lunatic asylum, I take the ground that his trial, conviction and execution were proper, and even necessary, for the public welfare. This may be paradoxical, in view of the presumed irresponsibility of the insane, but I shall endeavor to demonstrate it as a practical proposition.

It is asumed that the principal object of criminal laws and penalties is the protection of life and property. The idea of vengeance has been elimimated from human codes, in the progress of civilization, though it survives in the divine canon. Penalties are addressed to the criminally disposed, for the purpose chiefly of deterring them from invading the rights

of others; and it has been found that their efficiency is in ratio to certainly rather than severity. The criminal class have an extraordinary propensity to gamble on every issue, and will stake even liberty or life, at highly unfavorable odds, for an unlawful object. Certainty of punishment withdraws an offense from the operation of chance. Sudden passion, deliberate revenge or self-preservation might indeed set sure penalties at defiance, but a capital penalty will at least arrest a criminal career. Admitting the insane culprit be not deterred by penalties from the first offense, its certain punishment retires him from the scene, and the community is relieved of that particular danger.

In any event, I hold that the welfare of the sane members of society is vastly more important than the liberty, or even the life, of a dangerous lunatic.

The proper disposal of the insane is one of the most difficult of social problems, not because experts fail to reach a solution, but because most people resist the practical application of it, when the case is brought to their own door. To have a relative in a mad-house is regarded as a disgrace by people who will tolerate a living torment in their own circle, and witness the annoyance and peril of their neighbors, without realizing that the shame is aggravated by neglect to withdraw it from public gaze. In the same way people falsely reason that the crimes of their relatives reflect no dishonor upon themselves, so long as they go unpunished. The natural consequence of this foolish opposition to the wholesome and lawful restraint of invaders upon personal rights is resort to lynch law for sane criminals, while the insane sometimes lose the immunity that attaches to their infirmity. It is probable, however, that at least three sane persons are acquitted on the "insanity plea" for every insane criminal convicted.

Again, the acquittal of a malefactor on ground of insanity ought to be followed by his permanent retirement to a lunatic asylum; but people have a notion that the temporary insanity of a relative is a smaller disgrace than an incurable case, and their efforts for release, seconded by neighbors who will risk

repeated atrocities rather than resist importunities, are too often and too soon successful.

A man who has a dangerous bull or dog, and allows him to run at large, is justly held responsible for consequences, and is not legally excused by promising to put the animal in confinement after acts of destruction. Guiteau had been a nuisance for more than twenty years, and, to say the least, it would have been good economy for the public to support him in an insane asylum. Aside from the various annoyances resulting from the presence of such persons in society, there is constant danger of outbreak into maniacal fury, with consequences shocking to witness and contemplate.

A vast amount of silly sentimentality is effused on criminals, both sane and insane; as if a few such worthless wretches deserve more consideration than the great mass of well-behaved and respectable people. It is indeed shocking to take the life of a madman, judicially or otherwise; but it is simply bad management to allow a lunatic to commit an act for which a sane person would be punished, and still worse to risk its repetition. Let the unhealthy sentiment which denies society protection from crazy explosions be suppressed; let lunatics be early and positively secluded; and there will be little occasion to plead insanity in a court of justice.

The lax enforcement of legal penalties is the grand mischief of our free institutions. It has grown to an abuse which often provokes its own remedy, by resort to vigilance committees and lynch law; and the crimes of lunatics even may incite violent retaliation, as we have seen in the case of Guiteau. However abhorrent to reason and discreditable to our civilization, most people regard it a smaller disgrace for one of their criminal kindred, sane or otherwise, to suffer the extreme penalty extra-judicially than according to terms and forms of law, and this naturally contributes to relaxation of penalties. Thus a habit of lawlessnesss, tempered only by fear of private vengeance, is disposed to perpetuate itself, through the conservative tendency of mankind to adapt themselves to their environment.

I fully believe that it would conduce both to security of life

and property, and to the welfare of the insane, if they were held strictly responsible for their acts, like sane persons. Of the first part of the proposition there can be no reasonable doubt. Beyond withdrawing from the scene those who have committed acts of violence, there can be no doubt that many ill-balanced minds would beware of a sure penalty; and besides, it would put an effectual stop to cheating justice by false pleading of insanity. Moreover it would lead to the early seclusion of many dangerous lunatics, who are now allowed to annoy and menace those around them, and would thus afford them the best chance of recovery; while actually a very large proportion of the incurables owe their hopeless condition to delay of suitable treatment.

I hold that the proper view of this question of the legal responsibility of the insane is from the practical standpoint of utility, and here the liberty, and even the existence, of a lunatic sinks into utter insignificance beside the welfare of society. Utility has settled the question as to inebriates, in most parts of the civilized world, though their temporary loss of self-control is universally admitted; yet utility might waive the extreme penalty for crimes committed under alcoholic intoxication, provided incarceration could be assured as inflexible and permanent.

Indeed the only necessity for the death penalty at all lies in the uncertainty of all other measures to prevent repetition of the crime by the same individual. It is clear that human weakness and folly, which conspire to discharge malefactors and give them new lease of iniquity, will live about as long as criminal propensities, so that the only safe course with dangerous felons is to destroy them. The alternative, then, is between the judicial method, provided by law, and the various irregular forms of private vengeance, an impromtu mob and a vigilance committee.

It will be said that the execution of an insane criminal might cost a valuable life, for the individual might be restored to reason and a respectable position in society. The answer is, that no community is safe with a person at large who has once

been insane and shown homicidal propensities, and the public interest must outweigh individual considerations.

It may be alleged that the restoration of penalties upon the insane is a relapse toward the barbarism of the past. The answer is, that their immunity from punishment is demonstrated a deviation from progress, inasmuch as it practically encourages crime and provokes violent and unlawful retaliation. The right in sociology is the useful, to the whole body or to the greatest portion; the unattainable may be speculated on by those who have no better occupation than devoutly wishing. Practical people recognize their environment and act accordingly; what they find safe and tolerably certain, they will choose in preference to what might be praiseworthy under different circumstances.

I conclude, therefore, that the imperfect administration of justice in this country (probably a necessary consequence of our free institutions) renders it unsafe, and therefore unwise, to absolve insane criminals from the usual penalties.

To the legal mind, imbued with the notion that crime necessarily presupposes malicious motive, and that punishment for any except criminal acts, under the above definition, would be an outrage, the foregoing conclusion must appear contrary to precedent, and subversive of justice between man and man. Admitted: but I look not from the legal stand-point, though venerable with age and fortified by innumerable precedents. The broad platform of utility is the proper forum for deciding questions which involve the safety and the elevation of the race. Both these considerations demand either the certain seclusion or the destruction of homicidal monsters, whether sane or insane: actually we find dangerous lunatics abroad in numbers, and we have to look to the dreadful alternative for safety.

Be it understood here that a distinction must be made between moral and legal responsibility, as regards criminal lunatics. Let them be judged hereafter by their moral responsibility as individuals; and we might reasonably suppose that mercy would prevail over vengeance. Human justice is concerned chiefly with the welfare of society, and penalties

are contrived to protect the orderly many from the disorderly few. I might admit that society has no moral right to take what it can not give back—the life of a man; but its imperfect organization demands that a deadly menace, unquestionaby proved, be inflexibly and totally suppressed.

In this argument I feel bound to recognize probable results, and am ready to admit that American juries would very rarely convict manifest lunatics of capital offenses, even though required by both law and evidence. They would be sure then to lower the grade of the crime, as they are very apt to do now, when the charge is murder in the first degree. Practically then the madman would, at the worst, be sentenced to perpetual confinement, and nothing less would ensure the public safety. The real danger of wrong would arise where mental unsoundness is doubtful, and here also juries would be sure to incline to clemency, in the vast majority of cases. The great gain would lie in the fact that it is considerably more difficult to procure the enlargement of a convict than that of a lunatic.

Salus populi suprema lex is the true foundation of human justice. In grave emergencies, like war and civil commotion, when martial law supersedes the civil law, individual rights are eclipsed, and gross personal injustice is sometimes committed. It is like the sacrifice of an injured and innocent limb to save the body.

It is only within the present century that capital punishment has been limited, among the English-speaking portion of the world, to a few of the most atrocious crimes, and it is not unlikely that it may eventually be abolished with safety among the most civilized nations. But this can not be until criminals are convinced that milder penalties will certainly overtake and be inflexibly meted out to the full sentence. In that future we may hope madmen will be dealt with so early, so perseveringly, and withal so successfully, that people will wonder at the mistakes of the present, which allow them to become malefactors.

Amenorrhoea.

By Frank E. Artand, Resident Student, Charity Hospital.

Read before the Charity Hospital Students, Medical Society, May 5th, 1882.
(Service of Dr. Matas.)

Mr. President and Gentlemen:—I have the honor to solicit your attention to the following statement of a case in the Charity Hospital, Ward 34:

The clinical history of the same is most instructive, and I think a careful consideration of it, leaves ample room for future deliberations, since the above was diagnosed three times, each diagnosis differing widely from the other, and all proving erroneous; save the last, namely:

AMENORRHŒA.

Examination, March 3d, 1882; Name, K. E.; aet. 26; bed 525; place of birth, Mississippi; occupation, cook; Admitted March 1st, 1882; habits, doubtful; single; previous diseases; variola about a year ago; non-appearance of menses for a year; general health, has been quite good; hygienic influences to which exposed, rather poor; lived in houses badly ventilated.

History of present disease.

Its supposed exciting cause; prolonged exposure to the inclemency of the weather.

Date of seizure, February 28th, 1882.

Mode of invasion—loss of power over the limbs; pains felt in the spine, radiating therefrom to the extremeties; tonic contractions of the muscles of the arm; clonic in left arm; likewise tonic contractions of the muscles, of the neck and back, giving rise to retraction of the head and opisthotonos to a greater or less degree.

The pains in the vertebral column were confined to the cervical and dorsal regions, and were much increased by pressure over these regions; particularly just above the spinou processes of the vertebræ.

Photophobia present and eye-brows corrugated, pupils contracted.

Abdominal walls somewhat depressed; drowsiness notable; breathing exclusively costal; she could speak in a feeble voice, but her efforts at speech were of a jerking character.

The sensibility of surface of body on left side much increased (diffused hyperæsthesia), and complete hemi-anæsthesia of right side.

Temperature 98.5; pulse, infrequent.

Aspect of countenance, haggard and wore a look of unutterable bodily anguish.

General state of digestion: Appetite, none; thirst, likewise; bowels, constipated; urine, scanty.

Position in bed—cubitus supinus. Examination of special regions: a small periosteal tumor was found upon anterior surface of clavicle ¼ of an inch from sterno-clavicular articulation: Diagnosis. Cerebo-spinal meningitis.

Treatment chloral. hydrat.; bromd. potass and ergots blisters applied upon each side of the vertebral column, covering that portion of the back corresponding to the cervical and dorsal regions; with an interval of about 2 inches apart.

Evening, March 1st: temperature 101-2° F.; respiration 40; pulse 108; intense cephalagia referred to occiput increased by movements of body, likewise agonizing rachialgia.

Hyperæsthesia of surface of the body (left side) increased, rendering slightest contact a source of suffering.

Morning, March 2d: cephalagia less intense, much pain referred to cevrical portion of cord; and much pain and tenderness in the left inguinal region, also extremely sensative to the touch; perspiration profuse.

Temperature 99-2° F.; pulse 80; respiration 28. General state of digestion; appetite lost; thirst present; tongue, large and flabby; on under surface indentations made by pressure of teeth—urine scanty; examined chemically and microscopically by resident student P. Michinard and found to contain "albumen, hyaline casts, pus and some epithelial cells from pelvis of kidney."

Hyperæsthesia notable; the following are observations taken by means of the æthesiometer showing the marked difference

in the tactile sensibility of right, anæsthesia, and left side of body, hyperæsthesia.

	Left Side Lines.	Right Side. Lines.
Palmar surface of second finger	1½	5
Palm of hand	2½	10
Plantar surfaces of the metatarsal surface of great toes	5	12
Skin over patelæ	8	20
" " dorsum of hand	3	14
Neck under inferior maxilla	9	22
Skin over sacrum	14	28
Dorsum of feet	7	22
Middle of arms	20	40
" " thighs	15	50
Leg near knee joints	10	25

I quote the following table from "Müller's Physiology" showing the minimum normal distances at which the two points of the aesthesiometer can be distinguished in regions intimated above; upon comparison the hyperaesthesia in one case will be found to be very great; likewise the anæsthesia.

Palmar surface of second finger	2 lines
" " " hand	5 "
Skin over plantar	16 "
Dorsum of hand	8 "
Neck under inferior maxilla	15 "
Skin over sacrum	18 "
Dorsum of foot	18 "
Middle of arm	30 "
" " thigh	30 "
Leg near knee joint	18 "

Evening, March 2: Temperature, 101–4° F.; pulse, 102; respiration, 43. Much pain referred to the occiput.

Morning, March 3: Temperature, 99–2° F.; respiration, 22; pulse, 97.

A notable transferrence of symptoms had taken place in respect to the sensibility of surface of body, namely, hyperæsthesia of right side, hemi-anæsthesia of left, and tonic contraction of muscles of arm; left clonic.

Neuralgia supra-orbital; clavus hysterious; pain and tenderness over the right ovary; urine scanty; paroxysms characterized by convulsive movements; consciousness preserved.

Diagnosis: hysteria.

Evening, March 3: Temperature, 100° F.; pulse, 120; respiration, 27. Patient feels much better, rachialgia having disappeared; she is able to move about with much more comfort, and bowels having moved also, the uneasiness about the abdo, men heretofore present seemed much relieved; appetite better, aspect of countenance brighter, cephalalgia absent, likewise photophobia; only complains of much fatigue, as though she had taken a long walk.

No pain or tenderness over the ovaries; ænsthesia totally wanting, hyperæthesia only confined to the joints (right side). In fine, a diminution of symptoms in general. The tumor upon the clavicle had also disappeared. She passed urine freely.

Upon questioning her, I found that since 4, P. M., a discharge from the vagina was noticed, very thin and in small quantities. I examined the same and found it to be mucous tinged with blood.

Morning, March 4: Temperature 99.2° F.; pulse, 100; respiration, 20. Patient seems to have a vague sense of discomfort; pains in the breast, and in the back and loins, a feeling of weight and heat; discharge from vagina still continues, only blood predominates more, otherwise, subsidance of all symptoms, except hyperæsetesia of right knee joint.

Diagnosis: Amenorrhœa.

Treatment: Hip baths; ergot eliminated from the former prescription.

Evening, March 4: Temperature, 101° F.; puise, 102; respiration, 20. She complains of uneasiness in back and loins; discharge from vagina more abundant.

Morning, March 5: Temeprature, 98.6° F.; pulse, 96; respiration, 19. Pains in back and loins absent; hyperæsthesia of knee joint likewise. Discharge from vagina entirely blood

in character, and in large quantities. Some excitability of genitals present.

Evening, March 5: Temperature, 98.5° F.; pulse, 90; respiration, 19. Flow from vagina very profuse; patient feels bright; appetite good; urine normal; bowels moving regularly.

Morning, March 6: Temperature, 98.6° F.; pulse, 90; respiration, 19. Patient doing well, sits up in bed; flow from vagina still abundant.

She continues to improve, and was finally discharged cured March 10, 1882.

A Case of Hepatic Abscess.

By L. E. Borcheim, M. D., of Clifton, Arizona.

Formerly House Physician of Mount Sinai Hospital in New York City.

The patient, H. C., native of Atlanta, Ga., aged 31 years, married, book-keeper by occupation, presented himself December 30th, 1881, giving the following history:

"With the exception of intermittent fever which the patient had when a boy of 15, and from which he believed himself cured, he has always enjoyed good health, until four months ago when he began to experience slight uneasiness in the right hypochondrium, which gradually gave place to pain, steadily increasing in severity and never intermitting; he also noticed that although not jaundiced, his complexion from that of health became a dingy sallow color; also, that his bowels from their usual regularity became constipated, and the fœces were lighter color than usual.

Appetite, however, remained good, and at the present time is fair. The patient denies ever having received any blows, never had dysentery, gives no history of gall stones. Never used alcoholic stimulants.

When first seen (December 30th), the patient was fairly nourished, quite anæmic, and has the cachexia of chronic malaria. Depression of spirits very marked and resembling a person suffering from malancholia.

He complains of pain in three distinct places, pointing to

each distinctly. One point at the tip of ensiform cartilage, another over gall bladder, and the third in the tenth intercostal space, about 3 inches from spinous process of vertebræ.

Upon physical examination, the following results were obtained:

Heart—Normal valves, rythm irregular.

Lungs—Left side negative; on the right flatness beginning at seventh intercostal space, posteriorly and extending downwards. Above the point of flattness physical signs were normal; below it the expansion of thorax was diminished and entire loss of respiratory sounds and fremitus.

Spleen—Area of dulness greatly increased.

Liver—Inspection showed undue prominence of right as compared to left hypochondrium.

Percussion. Anteriorly—R. Dulness begins in fourth intercostal space, and flatness in fifth, and extends downwards to about one inch above umbilicus. Extends to three inches to left of median line, anteriorly, and posteriorly to spinal column.

Palpation shows free edge of liver. No fluctuation, on nodules.

Urine sp. pr. 1020, normal.

Blood, no free pigment.

Temperature, normal in A. M and 101° F. P. M.

At the points at which tenderness was complained of, a fine aspirating needle attached to a hypodermic syringe was plunged in; at a depth of three inches resistance was lost, and on withdrawing piston a chocolate colored fluid was withdrawn at each of these places.

Upon microscopical examination of this fluid, it was found to contain broken down hepatic cells, red blood corpuscles and a large amount of detritus, probably broken down leucocytes. Chemically the fluid showed presence of biliary matter.

January 3d, I introduced a medium sized aspirating needle of a Dieulafoy aspirator in the tenth intercostal space, three inches from spinous, process into the liver, and gradually withdrew 1,330 grammes of the fluid above described. After this had

been done I injected a 2 % solution of acid carbolic into the abscess cavity and withdrew same.

The temperature, which up to this time always showed an evening rise, in spite large doses of quinine, now fell spontaneously, and hopes were entertained that this aspiration had proved effectual in curing the abscess, but after a respite of six days the thermometer began to show evening exacerbations and profuse prespiration, and other symptoms of septicæmia began to manifest themselves.

The aspiration was repeated in same place, only 310 grammes of fluid being withdrawn owing to the severe pain complained of during the operation.

The patient was placed upon tonic treatment. Quinine, iron, strychnine, etc., being administered as well as nourishing diet. On the 17th January it became necessary again to evacuate abscess, and this time 1000 grammes of pus withdrawn.

January 24th, operation repeated and 850 grammes withdrawn.

The condition of the patient now became quite critical. The symptoms of septicæmia becoming more marked daily, and aspiration seeming to afford but slight and temporary relief, although the cavity was diminishing in size. Dr. A. G. Gerster was invited to see the case with Dr. J. Rudisch, and advised the opening of the abscess cavity, and the establishment of drainage, and as a measure of temporary relief Dr. Gerster inserted a medium sized canula into the liver at the place where aspiration had usually been performed, and through this 750 grammes of pus were discharged. On the 9th of February, after removing this canula, Dr. J. Weiss administering chloraform, and kindly assisted by Dr. J. R. Nilsen, I made an incision in the tenth intercostal space, beginning three inches from spine, and cutting in centre of this space, making the incision about 1¼ inches in length, dividing all the tissues down to the liver, thence passed a grooved director into channel made by the canula, into which a curved bistoury was passed and an incision made into the liver one inch deep and about as long. The hemorrhage was slight and stopped spon

taneously. A drainage tube was next introduced, and found to enter into a cavity which was six inches deep; after this the cavity was washed with a 2 % solution of carbolic acid in water.

The temperature fell to normal after this operation, but the drainage not being as perfect as desired, I enlarged the opening in the liver the following day, when a good free drainage was obtained.

The patient rapidly gained in strength after this, and the cavity diminished in size, being washed four times daily with solution of carbolic acid.

On February 28th, the patient had a severe chill, followed by a rise of temperature, which at 9, P. M., had reached 104.5° F. In the morning an erysipelatous blush had made its appearance about the wound, and in spite of most energetic treatment, the erysipelas spread, and soon involved the entire trunk. The patient vomited severely next day, and was unable to retain any nourishment.

On the 5th March, I administered a solution of beef, prepared by Mr. Rudisch, after Leibig's formula, which was retained, and kept this up, in connection with champagne.

The erysipelas gradually began to subside after having reached its maximum intensity on the 7th, and temperature began to fall. Patient again improving. Tonic treatment was persisted in; the rubber drainage tube being replaced by a few strands of linen charpie soaked in olei carbol. 10 %.

On April 1, the wound was permitted to close, which it readily did, and patient was discharged from treatment, April 15, 1882, cured.

One point to which I desire to call special attention is the impunity with which exploratory punctures were performed. The same having been done ten to fifteen times, giving little or no pain, and no subsequent inconvenience.

Also, the fair trial given to the evacuation by aspiration and its negative results, and to the fact that absolutely no harm was produced by the free ingress of air into the cavity, the discharges at no time becoming fetid.

Observations upon Congestive Fever.

By T. A. Cooke, M. D., of Opelousas, Louisiana.

The disease called congestive fever, according to the reports of physicians, prevails more or less extensively every year in the South and South-Western States; but from frequent conversations with most respectable practitioners, from different regions of the country, the prevalence of this endemic appears to me not so extensive as public belief credits. It is very true, that in the Middle-Western States particularly, some sections of the country are occasionally visited with the disease, quite in the form of an epidemic; but as a general rule, according to my experience, which has been confirmed by others who have enjoyed a better opportunity than myself for observation, it does not bear to our common autumnal bilious fevers, a ratio greater than 2 per cent. For the period of eleven years, durring which I have practised medicine in Opelousas and the adjacent country, it has not been my lot to observe, on an average, more than about 12 cases a year; and I have been somewhat astonished to hear of the frequency with which this disease is met with, by physicians residing in sections of the country no more favorable to its production than that in which I live.

I now proceed to describe the affection as it has presented itself in my practice. Its probable causes, its pathology and treatment will be considered. I do not propose to write a regular systematic essay on the subject, and therefore shall be excused for the absence of order and method in my remarks.

That condition of the human body, to which the term congestive fever, *peste froide*, cold plague, is commonly applied, comes on under different circumstances, sufficiently well marked in their character, to justify distinct divisions of the disease.

The form of the disease generally noticed, may be termed intermittent. The patient experiences a chill or ague, similar to the chill of common fever. The reaction which ensues may or may not be strong; and soon terminates in perspiration. On the next day, or more generally on the second day, another

chill; sometimes more severe, sometimes milder than the first, comes on; the pulse will be found small and threadlike; occasionally much nausea exists, and generally speaking there is constipation of the bowels. From this chill, very frequently in this form of congestive fever, there is no reaction—never the full condition constituting fever. The hands and feet continue cold, presently this coldness invades the whole length of the extremities—a cold clammy sweat ensues, and with the exception of the epigastric region and along the neck, the whole body is of cadaverous coldness to the touch. I wish it to be observed that the coldness of the extremeties and sometimes of the whole peripnery of the body, occurs frequently with a dry skin, that is without any manifest perspiration whatever. Such cases, though rare, I have met with. The perspiration is not the cause of the coldness, but may, when it occurs, as it most always does, when the part perspiring is exposed to the air, increase the sensation of coldness to the touch. As the congestive stage progresses, numerous other distressing symptoms come on, as restlessness, increasing to the extent of the most distressing jactitation. Nausea, more or less constant, an inability in some cases to retain anything on the stomach; so great, that sometimes calomel will be vomited after it has been changed by the action of the fluids into a dark oxidated matter. The matter vomited at first, may contain some bile mixed with injesta and the secretions of the stomach; but frequently consists of what the patient has taken. The bowels may be constipated in this kind of an attack of congestive fever; but I have generally found them laxative. The discharges, whether spontaneous or brought about by medicine, vary in their nature; sometimes of an earthy character and whitish appearance, in other cases of a greenish black color; and again, of a muco-sanguinolent hue. I have never seen vomiting of blood, but frequently excessive hemorrhages from the bowels. There is never, that I am aware of, any noticeable swelling of the abdomen from wind or gas, nor that deep depression of its parietes often seen in the low typoid grades of autumnal fever. The thirst is generally intense, but not invariably so—being sometimes so slight as to elicit no notice or

complaint. Biliary secretions in a vast majority of the cases is arrested, and its re-appearance, as far as the subsequent evacuations would seem to show, has been simultaneous with returning warmth and pulse.

It frequently happens, that in the beginning, a dose of emetic is prescribed, or an active drastic purgative, which is followed by that condition of the system to which we give the name of congestion. To the same symptoms described above, is frequently added in the place of those above mentioned, rice water evacutions. Then the *tout ensemble* of symptoms are such as are characteristic of the malignant cholera. The cause of the disease seems to have increased in fearful energy, or the medicine has developed its fearful effects to a terrible degree; all the extremities, and sometimes the whole body is of marble coldness, with more or less perspiration; the patient sighs often, without any difficulty of breathing, for the air penetrates freely the cells of the lungs, the pulse often ceases to beat, the tongue appears dark, and to the touch as cold as the skin, the hands and feet become shrivelled, as if they had been steeped in a warm astringent liquid; the alæ nasi contract, the expression of the face is haggard, the lamp of life appears to flicker, death seems ready to encircle the patient in its very grasp. Appalling as is this state of things, it is nevertheless far from being desperate; for patients do and will recover under such circumstances, which apparently preclude all hopes of recovery. One of the favorable circumstances in this affection, is the rapidity with which this collapse has taken place, when it has come on suddenly; whether or not propelled or caused by medicine;—the good effect of stimuli is more apparent than when the state of congestion has been gradually stealing on. This fact is, I believe, one in which all my medical associates concur. Though frequently witnessed, it nevertheless suffers many exceptions. It has certainly appeared to me a prominent fact. Another form of this disease appears to be, or to grow out of, a remittent affection. There is from the beginning little or no chill—perhaps the feet and hands will be found cool—and there is seen nothing of the sort afterwards. The fever, with which the disease is ushered in, is not intense

it remits and exacerbates for a day or two, the pulse being sometimes small and frequent, or full, but readily yielding to pressure. The evacuations are of a sero-sanguineous character; bile being absent. The patient is very much alarmed; he complains of great inward heat; is thirsty, and very much incommoded by the frequency of his alvine discharges. At length he complains of weakness; his extremities grow cold; mustard plasters and stimulant frictions avail nothing in re-establishing the heat. The coldness continues, his pulse becomes thready, and there the whole coterie of the symptoms of congestive fever sets in.

I remember well, one case of pure congestion, which was never preceded by increased heat of skin or febrile pulse. Such cases, I believe, are not uncommon. There is here no re-action; the feeling of lassitude continues until the patient takes to his bed. The circulation grows weaker and weaker; the temperature of the body diminishes. The extremities grow cold; common purgative medicine administered, either proves impotent, or hypercatharthis will ensue. In the case alluded to, the patient was restless in the extreme, constantly changing from the recumbent to the erect position, and walking about until fatigue would compel him to rest in his bed. His bowels were excessively constipated. Mustard plasters, blisters and mild mercurial purges were administered without any noticeable improvement; at length, broken doses of salts and magnesia were given, with apparently the happiest effect —his bowels were freely opened, but he was still cold, and all the time complaining of excessive heat. He would suffer no covering over him. Without my permission, he determined on taking the cold bath, to relieve him from his imaginary burning heat. No re-action resulted—on the contrary, the blood seemed to concentrate itself still more within—so far at least, as the coldness of his body growing constantly greater, and the apparent paralysis of all external capillary action would indicate. Presently he commenced to experience difficulty of respiration, retaining all the time his mind in a state of perfect integrity. This difficulty in breathing continued to increase; in the course of a few hours, he had to be propped

up in bed. Then succeeded a wild incoherent talking, manifesting the implication of the brain—finally stupor and coma ensued, and he speedily died.

The progress of the case described is no fanciful sketch. I have witnessed similar conditions of things, in very many cases; and in none is the impotency of art more forcibly demonstrated—certainly none is more calculated to excite the most painful sensibility of our nature than the procrastinated agony of death which we are called to witness on such occurrences, without a weapon to arrest the ravages of our universal enemy. In these cases we mark the progress of the disease with our eyes. We are enabled, by including their organs whose functions are healthily performed, to localize the congestion—and then to count every step it takes in its tardy march—seizing first upon this organ and then upon another, until life is finally extinguished.

The duration of the period of congestion varies from a few hours to several days. In the intermittent form, reaction will often be effected in a few hours,—the patient will be again seized with a chill, symptoms of congestion will return, but with less menacing intensity than in the first instance, and convalescence be rapid. But in these cases without the aid of appropriate medicines a second paroxysm of congestion is very apt to prove fatal and even in the course of a few hours. In 1835, a patient by the name of Wright, a carpenter by trade, of a sanguineous temperament and robust health, but much addicted to whisky, was treated jointly by my friend Dr. Robert Smith of this parish, and myself. When called to him, he presented all the symptoms of the congestive fever. He complained of great thirst, his passages were of an inky hue and very small, and were so represented to have been from the beginning. He was occasionally delirious, as cold as ice and almost pulseless. Several stout men had to keep watch over him,—for even in his senses he could not control his extreme restlessness, and would frequently jump up, and after some exertion, his strength failing him, he would fall to the floor. This man continued in this condition for six days, during the whole of which period there was no perceptible reaction. His ap-

pearance was ghastly; his voice hoarse and gravelike. In the evening, for several days, without any increase in the strength of the pulse or return of warmth, he was subject to the delirium. Sleep seemed to have departed from his eyes, at length, about the seventh day, dating from the commencement of the congestive stage, there was a manifest amendment; and convalescence was soon confirmed.

In 1842, I was called early one morning to see a young girl, belonging to one of our most respectable families. The night before the last, she had had a fever, but the day succeeding she did not appear to the family so very sick as to require medical aid. The night preceding my visit she had a return of the fever—was very restless, and could not sleep. On my arrival, I found her breathing frequently interrupted with deep drawn sighs—an uncontrollable restlessness—extremities cold—pulse rather small, soft and yielding—eyes filmy—no pain of a severe nature, but a general feeling of prostration and sickness; stomach very irritable—frequent dijections resembling rice water, with flakes of mucus. The symptoms continued rapidly to increase until she presented the most ghastly picture of a living being I ever witnessed. Twenty hours after my first visit, she presented the identical appearance of one in the last stage of malignant cholera. The dependent parts of the body were livid from an apparent stagnation of the blood. This very unfavorable symptom existed to an extreme degree. Twelve hours more elapsed before any change occurred; which fortunately was an improvement, and in some two or three days she was completely convalescent. I have mentioned these cases as examples of the severity of the disease and of its possible duration. As a general rule, the physician should be inspired with increased hopes by the continuance of the disease, provided no new organs become attacked. It has been my lot to be called to cases of this disease, after the attending physician, unacquainted with the miraculous recoveries, which sometimes occur, had condemned his patient, and ceased to administer any remedial agents; and to our great gratification, the recuperative energies of nature have been aroused; the almost stagnant blood has been put in motion; and confirmed convalescence in a brief space of time effected.

The period of the year, which appears amongst us most favorable to the production of the disease, may be comprised in the months of July and August. Certainly according to my observation it is more frequently met with in the beginning of the sickly season, than subsequently; during all autumn, and sometimes after frost, it is met with.

No subject in medicine is involved in greater obscurity than the Etiology of diseases. In the production of autumnal fevers the effluvia from vegetable matter, called miasm, is considered the most potent of all causes. Chemical analysis has been incompetent to detect its nature. Air collected on the border of the Pontine marshes, in the infected atmosphere of a room crowded with patients, and on the tops of mountains, furnish the chemist with the same results. The conditions in our country, favorable to the production of the poison, are as little known as the nature of the poison itself. The circumstances, which reason would suggest as most favorable to its production, are found by observation to exert no influence in its propagation, and very frequently would appear to militate against it, instead of in its favor. We have seen our country enjoying one year extreme good health, notwithstanding the long continuance of the most intense heat, superabundance of rain; and easterly winds;—another year under similar circumstances, it has been ravaged by disease; other years, when anticipating good health in consequence of a moderate temperature, a uniform season, and moderate rains, without prevailing East winds, we have also had to sustain the most extensive visitation of disease. No one in this section of the country, resting on experience or observation, can designate any infallible circumstances as productive, or promotive of sickness. To say that autumnal fevers are produced by marsh miasm, is an assertion sustained only by the facts that these sections of country, exposed to the humidity and exhalations of marshes are subject to such fevers, and that other sections differently situated are not subject to such fevers. May not there be causes which tend only to disturb the normal constitution of the atmosphere, besides miasmatic emanations, which would produce the same results attributed to such emanations. The subject appears to me, as already stated, buried

in obscurity. There are more things in nature, than is dreamt of in our philosophy. Be the cause what it may, it is presumed by some to effect the nervous system; by others, the sanguineous system is thought to be the first attacked. One thing is evident, and I have never failed to verify it; and that is, that in the beginning of our fall fevers, when blood is drawn before any fever has declared itself, it is in a vast majority of cases, found to be of a much darker hue, than is its color in health. Its power of coagulation is impaired, a dark soft clot, with a little serum being the result. A few weeks ago, while attending in this neighborhood, Mr. P. R., a gentleman occasionally subject to very severe inflammatory attacks, I observed his wife looking badly; on enquiry she expressed herself unwell, for some two or three days, chiefly with the head-ache, affection to which she was very subject, and requested me to bleed her. The blood was drawn from a large orifice, flowed in full uninterrupted stream into a soup-plate—it was really black in color—in the course of half an hour, formed a soft grumous mass with little or no serum. I observed to her friends that she would fall sick inevitably; especially as her attendance on her sick husband prevented her from taking efficient medicines, for the purpose of stimulating the liver, and freely, evacuating the primæ viæ. Accordingly she fell sick, and was confined to her bed for a week. On the same occasion, blood drawn from Mr. R., suffering with symptoms indicative of inflammation, was much brighter in color than common venous blood, and separated into a hard reddish coagulum, and a considerable quantity of serum. This circumstance is mentioned simply as corroborated of what Andral has fully established, viz: that in the plegmasiæ there is an excess; in the pyrexiæ a diminution of the blood fibrine. No doubt on my mind exists of cases of the latter class, running a somewhat protracted course, and finally terminating fatally, not only without owing its origin to inflammation, but without even the supervention of that condition. In general our diseases result from a poison existing in an impalpable form in the atmosphere; or from the predominance of one of the elements of air, affecting or modifying the nervous system, or

rather, in my opinion, sanguification; or from the constant vicissitudes of temperature, and the ever varying conditions of moisture, preceded by noticeable indispositions—by appreciable shades of a departure from health increasing in intensity, until the vis medicatrix naturæ is aroused, and fever, not only the consequence of the morbific causes, but one of nature's remedies, perhaps more important than any we possess, is established. It is not denied that the cause may be concentrated and active, so as to produce immediate indisposition and very speedily fever. But in the large majority of cases, want of appetite, nausea in the morning, sensations of uneasiness, or of pain in the head—constipation or diarrhœa—light colored evacuation—irregular action of the skin, and more or less derangement in quantity, or nature of most of, if not of all, the secretions—symptoms which more or less precede the paroxysm of the fever,—certainly show conclusively the slow operation of the cause, whatever it may be. Such likewise, as far as I have observed, is particularly the case with the congestive fevers of Western Louisiana. All the symptoms previously to the congestive stage, and also we presume the causes of this disease, and of remittent, continued, and intermittent bilious fevers are the same. There may, I believe, be cases of this disease in which the symptoms, preceding the paroxysm of excitement, so gradually occur, that no one can predict that in a few hours there would ensue the state of congestion.

What is the nature of congestive fever. All who have observed the disease and examined the blood, agree that it presents in this affection as great a departure from its healthy appearance as in any other disease;—that there is a similarity in its morbid character, in this and other malignant affections of the South in the fall of the year. I cannot doubt that the primary cause, whatever it may be, does exert a most malign influence on the organization of this fluid; that its alteration is the first link in the extended chain of phenomena, which we witness; and that the nervous system particularly, and all the other organs, are secondarily implicated. In all instances, I believe, previously to the breaking out of the disease, the blood from the first moment of the slighest change in the feelings

for the worst, will be found darker, and imperfectly coagulating. For the regular and healthy performance of the functions of the organs, a blood is required, free from the presence of morbid elements, or from the existence in excess of one or more of its constituents. The symptoms of congestive fever lead most strongly to the inference that its cause exerts upon the heart, arteries, and nervous system, debilitating influences. In the congestive stage, there is an apparent prostration of all the energies of this system. This condition of things may endure for hours, for days, nay for a week—suddenly there is a change for the better, and the miracle of a resurrection is attested. The almost entire surface of the body is deathly cold—the extremities are shrivelled—except on the surface of the body, and in portions of the alimentary canal, scarcely is there an effusion or secretion; the artery may be punctured at the wrist, and blood will exude only by drops,—add to this the preservation of the mental faculties, and the capacity of full inspiration, and I will ask what has become of the blood which some hours or days ago coursed in a full and healthy current through every organ of the individual, of a large and robust frame, and sanguineous temperament. It seems to me that there can be but one answer—and that is, that under these circumstances, the three or four gallons of blood which ceases to circulate, has settled in the organs of the abdomen. In the liver and its appendages, in the mesentery and bowels, and the other abdominal organs, the blood must have accumulated or been congested. It is to be presumed, that post-mortem examinations would throw much satisfactory light on this disease. Certainly, but few if any autopsies have ever been made, and if made, they are not referred to by writers on the subject. I have, on more than one occasion sought to make them, but been refused permission by the unenlightened friends of the dead. Last summer, 12 months, I witnessed a partial examination of an individual, said to have died of this fever. A very intelligent gentleman, who watched the progress of the case, stated it to me pretty much as follows: The deceased had been complaining for some days—at length he was seized with a paroxysm of fever, which did not last long, but the patient still

complained very much, and was very cold. His attending physician, I have reason to believe, was not at all conversant with the disease, and contented himself with an expectant mode of treatment. About 24 hours after the first paroxysm, some more fever or rather increased restlessness occurred, but he soon became very cold, and continued to live in this state, without delirium or dyspnœa, for about 12 hours. It was in his opinion, a pure case of the cold plague, and I have no doubt of the fact myself. I place full reliance in the opinion of the individual in question. I was invited to witness the post-mortem examination which, the weather being very warm, was commenced six hours after death. Not having witnessed the course of the disease, and having not a minute to spare, I did not wait longer than to examine the chief organs of the abdomen; and this even very superficially The subject was a large robust body, of the bilious temperament. That which attracted our attention, was the presence of blood, as if injected into every organ of the abdomen. The liver was of a blackish red appearance, and when cut into without pressure, the blood poured from its substance. The peritoneal membrane appeared thoroughly injected—and so, also, particularly the mesentery and coats of the bowels. To the eye, it seemed that all the blood in the body must have been accumulated within the abdomen. After a few incisions, there was such an excessive amount of liquid black blood, in the abdomen, as to render further examnation of its organs exceedingly difficult and disagreeable. Another physician and myself were both satisfied that the individual had died of congestion of the blood in the organs of of the abdomen.

Congestive is unfortunately a term too loosely applied to the fevers of our country. Some physicians assert, that all the cases are of this order, whether there exists sthenia or asthenia—high continued excitement or marked debility. I can well conceive, that the desease may have been preceded by a continued fever of a day or two duration—that the forces of life on the cessation of fever sink, and that temporary or fatal congestion or accumulation of blood may centre in certain organs. In all the cases of this fever which I have seen pre-

viously to the collapse stage, there has been something in the general appearance of the patient, in his peculiar restlessness, his weak pulse, or one easily depressed, and in the coldness of the extremities, or of the fingers, toes, nose and ears, which pointed to debility.

The disease is not unlike all others in presenting different grades of intensity. All the symptoms in its severe form are appalling, and without a knowledge of the extraordinary recoveries which so frequently occur, would almost deter us from resorting to remedies for relief. The continued absence of bile, spasms, arrest of urinary secretions, and particularly the involvement of the organs of more than one cavity, are most unfavorabe symptoms. The head and lungs being free from congestion, I have never known a case in which recovery was not rapid and certain so soon as the liver acted freely.

The phenomenon the most curious, which we observe in this malady, is the excessive coldness of the skin. It has been observed, that this peculiar condition has been seen unaccompanied by a degree of perspiration sensible to the touch. That this coldness is not dependent on the evaporation of sweat is proved not only by the fact above stated, which has been over and over observed; but also by the fact, that however you cover the cold body, and apply rubifacients, and prevent evaporation, you will not succeed in restoring the warmth; by the fact that this coldness always precedes the passive transpiration which ensues; and also by the singular circumstance of the coldness of the breath, and frequently death-like coldness of the tongue.

It is evident that one of the most remarkable phenomena of the disease, is the abolition, to an immense extent, of the function of calorification, dependent, undoubtedly, upon imperfect respiration, debility of the heart, and a complete paralysis of the nutritive or molecular actions between the solids and fluids. It is this latter circumstance alone, which affords to my mind an explanation of the astonishing fact, of the possibility of the system being involved in the cold embrace of this terrible disease for so long a period as 6 days, and then recover its healthy condition. The state of congestion is sometimes

almost instantaneous in its attack. The whole system—some portions of which are scarcely supplied, some overcharged with blood—is thrown into a state of absolute torpor. The organs which execute the functions of waste and supply are paralysed. No destructive movements are going on—the small portion of arterialized blood is attracted to the brain. The patient remains in a horrible condition, vacillating between life and death, until at length, the never dying tendency of the natural energies to a restoration of health preponderates over the enemy—and health is restored.

In order to avoid misapprehension, the term congestive should be applied only to those cases which contra-distinguished from inflammation, present from the beginning, evidences of vital depression, and when fully declared, an entire absence of everything like inflammation,—the symptoms which mark the pure congestive or algid fever, a disease termed by many the cold plague. Its duration, the speedy restoration to health, under circumstances, which would, in many instances, throw the idea of inflammation, whether as cause or effect, entirely out of the question—the fatal effects of sanguineous depletion—the good effects of cordials and stimulants, all announce in this disease a condition of things diametrically opposite to inflammation. The pure congestive fever belongs, in my opinion, to the pyrexiæ, of presumed miasmatic origin; or in other words, I believe, the causes of common bilious fevers and this disease the same, that they act only with different degrees of intensity, or are followed by different effects, according to individual susceptibilities or idiosyncrasies.

The endless varieties of these fevers seem to me inexplicable, except on the last supposition, to which must be added, as a most important modifying circumstance, the incidental additions of local inflammations.

The derangement of the nervous system in all the pyrexiæ is too manifest to escape the attention of the most superficial observer, and whether it be as some believe a primary, or as others, in my opinion more correctly, consider a secondary link in the chain of morbid events, constituting the disease, it deservedly merits the utmost attention, not only as an ingredient

of the disease itself, but as involving organs, perhaps, of co-equal influence with the blood itself, over the functions of each and every other organ.

In congestive fever, the supervention of an inflammation in some organ or organs may ensue, but under its overwhelming influence, it is announced by none of its usual symptoms; and if manifested, would rarely modify the treatment that would be adopted. The fact, of the occurrence of this disease late in the fall or winter season, is no satisfactory evidence of its originating from causes differing in their nature from those which produce the common fevers; for the latter are frequently met with in this warm climate, at all seasons.

Whites and blacks, old and young, are subject to this disease. I have not often seen it in subjects who had passed their 40th year. With regard to its mortality, age seems to exercise but little influence. I am not disposed to consider intemperance as a predisposing cause of the disease; nor do I believe it more fatal in individuals addicted to much excess than amongst the sober.

The existence of fever appears to me an evidence of the absence of passive congestion. In those cases of the genuine congestive fever, in which much marked febrile excitement preceded the stage of collapse, the excitement incompatible with congestion, has been but an impotent effect of nature to prevent the condition which has ensued. I have already stated, that according to my observation, during this very period of excitement, there will, on an attentive examination, be found most always evidences of tendency to the congestive stage. The exceptions, to the existence of such evidences, I believe are rare.

In fully developed cases of this disease, in all cases of true congestive fever, certain departments of the nervous system are particularly deeply affected, and being a diffused or general tissue, the integrity of which is necessary to the healthy operations of all the functions, though not the first, it becomes a constitutional element of the disease; perhaps, more serious than any other. Intellect, respiration, locomotion and sensation are rarely, if ever so much affected, as would previously

be inferred would be the case, from a consideration of the appalling condition of the system. It is often astonishing, the activity—the intensity, with which these faculties will continue to act; often even when these organs seem almost deprived of arterialized blood. It is the entire paralysis of the nutritive actions which point to the ganglionic system of nerves, as that department of these organs most profoundly smitten in this disease.

In the common acceptation of that term, congestion, it will be seen from what has preceded, that it is, at least, in my opinion, in many instances misapplied. An individual is seized, for example, with any of the fevers termed malignant, as the typhus or scarlatina, in the progress of which there will ensue local derangements, such as engorgement of the lungs, of some portions of the brain, or of some other organ; indicated by the particular symptoms of the case. To the other symptoms of the disease this local affection is superadded; and it is a common thing, perhaps proper, for physicians to speak of such complication as congestive, while in all other respects, there is little or no modification of the symptoms. The skin, for example, may continue equally hot, the pulse may even augment in force, and yet the disease is termed typhus or scarlatina, with pulmonary or cerebral congestion. In what is considered, in this section of the country, pure congestive fever, we behold an assemblage of symptoms, a picture of disease, than which nothing in the form of a morbid condition contrasts more forcibly with the specimens of malignant affections above presented. I might here cite an infinite number of diseases presenting even a highly excited state of the cutaneous capillary circulation, which are described as accompanied with local congestion.

The term malignant is applied generally to fevers of a low grade or type, and is intended to designate a peculiar tendency to putrescence or gangrene. It seems to me wrong to apply the same word to conditions of the system, very dissimilar in their nature, and as in our congestive fevers, I believe there is no tendency whatever to gangrene, and no resemblance whatever between its symptoms and those of typhus or scarlatina,

in the parts congested. I think the term malignant should not be applied to it unless the term congestive, employed in the South and West, can be so restricted as to indicate solely a condition of things opposite to that of inflammation, by a greater or less diminution of arterial action, accompanied with a more or less excessive accumulation of blood in the parenchyma of certain organs and their vessels; it would be much better in my opinion to employ the term algid, notwithstanding it involves a contradiction in its application to the word fever.

It is very difficult to arrive, at once, at a knowledge of the actual mortality in this disease. In giving an opinion, I am forced to draw my conclusion from the result of my own practice; and after due examination and reflection, I would place the mortality at the rate of 15 per cent. It must be observed, that I include all cases, whether occurring in town or its immediate vicinity, or at a distance varying from 5 to 30 miles. The present year, I embrace a case in the calculation, in which death occurred in not less than ten minutes after my arrival. In placing the mortality at 15 per cent., it must be understood, that it does not relate to one, but to an average estimate of the disease for ten years. This present year, remarkable for healthiness throughout Western Louisiana, I have had in my own practice 12 cases, besides the fatal one mentioned; there was one other of the same kind. It happens but seldom, that the physician is called to cases of this disease before strongly marked symptoms of congestion have set in. Generally assuming an intermittent form, the first paroxysm, and sometimes the second being slight, accompanied frequently by less agitation—pain in the head—back or limbs, than is experienced in the common ague and fever; the patient or his friends are not alarmed until, without fever, the general *malaise* has increased, with irritable stomach—low week pulse—obstinate constipation; or if active medicine has been given, profuse purging of a highly morbid nature. At any stage of this disease would blood-letting be proper? When we recollect, that in pure autumnal fevers, great debility follows the period of excitement, that cordials and stimuli are frequently in their

first stages necessary, even when none of the symptoms of positive congestion exist; it seems to me plain, that the existence of any signs of congestion would counter-indicate blood-letting. I have already stated, that in my opinion, the condition of the congested organs in this disease presents none of the phenomena of inflammation, and that it resulted—first, from vitiated blood; and secondly, from the loss of nervous energy, the consequence of the derangement of the humours. Congestion being threatened, the abstraction of blood is calculated to hasten and establish it more firmly. In the year 1836, I was called to see a working man, Mr. Spence, aged about 30, of a sanguino-bilious temperament, of very industrious habits, and addicted to his daily potations of whiskey. He had had a slight paroxysm of fever, while engaged at work, as plasterer, some ten miles from home. He was brought home after the second paroxysm, in a state of great debility. On the day after his return home, he was taken with a most violent chill; I was sent for, and found him with a full pulse, but soft, complaining of severe pain in the head—great præcordial oppression, moderately warm skin. I drew from the arm about 18 ozs. of blood, with I thought a happy effect; ordered a mustard pediluvium and a mild purge. Perspiration came on and I returned home. Two hours had not elapsed before I was sent for in great haste, and on my arrival found him as cold as a dead body—but breathing well, and perfectly in his senses. I applied over his abdomen dry and wet cups, had him frictioned with mustard, pepper and hot turpentine; then applied mustard plasters, and a large blister over the stomach and liver. Gave him brandy toddy, pepperine, camphor, quinine and calomel; tried cold water injections, in a word,—the congestion continued to increase—he fell into an irretrievable collapse, and in about 14 hours after I bled him, he was dead. I have been always satisfied, that the loss of blood, in this case, hastened, if it did not actually produce the congestion.

In an article on the irritative or inflammatory form of yellow fever, I have lauded very highly the practice of copious blood-letting in its treatment. Between such a disease and the bili-

ous or congestive fevers, I believe no similarity exists—and the treatment in the one is confessedly different from that of the other.

Whoever, though, has attentively examined the symptoms of congestive fever, must very frequently have seen evident signs of irritation or inflammation in some portions of the gastro-intestinal mucous surfaces. But over such inflammation, blood-letting, perhaps, has less influence than over that of any other organ; though there may exist in this disease, in the beginning, considerable excitation, the fruitless effect of the vis medicatrix naturæ; yet the prime element of the disease is debility of the heart and arteries, and diminished nervous power. If, therefore, any symptoms of approaching congestion existed, even with unequivocal evidences of inflammation, which in the forming stage of the affection is very rarely seen, I would not resort to general blood-letting; for there is little hope, thereby, of inducing a diversion of the fluids from the organs threatened, or effecting favorably the process of sanguification, and of promoting the excretion of the morbid elements of the blood. The congestion will most certainly be hastened.

Pain in the head and along the spinal column, or nausea with great heat in the epigastric region being present, I would use wet and dry cups to these regions. The next step, the exhibition of a purgative, is, perhaps, the most important, and at the same time one of the most delicate, uncertain and responsible acts. I believe it to be important as the only efficient means of evacuating the primæ viæ of morbid matter, which almost invariably accumulates there, and is at the same time dangerous, as liable to arouse or increase gastric duodenal and intestinal inflammation; and thus to arrest the discharge or excretions of effete and noxious elements of the blood, into this great outlet for the impurities of the system. Constipation almost always exists—and whether or not attended with irritation, it will increase with the accumulation of morbid secretions. Thence purgatives are necessary—and I prefer to begin with a dose of rhubarb 15 grs., calomel 15, ipecac. 3; following it up two or three hours afterwards, with manna, senna, some

rhubarb, etc., to which I add some carbonate of soda and nit. potass. This last medicine I would repeat every two hours, until the bowels were freely opened. If the stomach is irritable and will not retain this medicine, it is advisable to stop it at once—to employ a combination of anodyne, alkaline and saline mixture, to be repeated at short intervals, until the stomach is completely settled. For this purpose I have long used paregoric with carb. soda, and spirits of nitre and epsom salts. Emollient and purgative enemata should be given and repeated. In order to prevent a future paroxysm, mustard plasters should be applied early to the extremities, removing them every hour or two to fresh parts, and letting them remain only to redden the skin. Quinine should also be resorted to in large doses, in combination with acet. ammoniæ and a few drops of laudanum, and given in enema, so soon as a motion has been obtained by the purgative injection. Give the quinine by enema. If the bowels have been opened by medicine, give the quinine injections with the purgative. If the stomach is settled tranquil, it would be advisable to give by the mouth quinine also, in combination with the above mentioned saline mixtures.

Cases will occur of excessive constipation, which will appear to increase in proportion as purgatives are given—the stomach is very irritable and will retain hardly any thing; calomel itself appears to exert a most unfavorable influence; the patient is restless in the extreme; such cases frequently seen in children, from 5 to 10 years of age, and very generally accompanied with oppression of the brain; the scanty passages from the bowels contain no fæces—but are of a serous or mucous appearance—the skin is cold and the pulse thready—sometimes imperceptible. In these cases it is difficult to prescribe. Irritation of the gastro-duodenal surfaces and of the intestines to a greater or less extent. Congestion of the portal system—the nervous system highly excited or depressed, present indications very difficult of attainment. Dry cups may be prescribed but when employed, seem to exert but little influence. The alkaline and saline mixture, alternated with small doses of calomel and ipecac., 2 grs. of one, with one of the other; blisters over the back of the head—over the stomach and liver, and in-

jections of quinine, etc., with acet. of ammoniæ—mustard plasters repeated to the extremities—frictions, with dry salt and pepper, immersing the body, up to the middle, in a bath rendered strongly irritant by the addition of salt and mustard —occasionally a teaspoonful of brandy julep. Under such a course, more may be expected than under any other I have ever seen tried. The continued employment of these remedies hold out the strongest hopes for the recovery of the patient. But, of course, no particular rule with regard to the periods of employing the remedies can be laid down. Let us content ourselves in these embarrassing cases with the slowest progress in the improvement of our patient; and beware, in our solicitude, of jeopardizing life, by the use of doubtful or heroic remedies.

The principles of treatment to be pursued in the intermittent form of this disease before congestion is evident, are more manifest than in its other forms. Quinine in full doses is the great remedy,—but efficient purging with manna and rhubarb, and epsom salts—preceded by rhubarb and calomel, is also necessary. If the bowels have been well evacuated, quinine may be given by the mouth in combination with the sp. eth. nit. and carb. sodæ; if not it should be administered in doses of 20 grains by enema, and repeated, provided it is retained for half an hour every three hours, and after a shorter interval, provided it is retained for a shorter period.

The treatment to be pursued after the congestive stage is fully formed, and the patient is threatened with complete collapse, no matter how the disease may have commenced, with chill and fever of an intermittent or remittent form, or not, appears to be very nearly the same; but always modified by the prominent symptoms which may accompany those of congestions. In these cases, in which the elementary canal—the brain—and the lungs present no marked symptoms of disease, it seems to me fair to infer that the organs of the abdomen external to the intestines are the chief seats of congestion. The great indication then is to equalize the circulation, by the means of stimuli and purgatives. The latter should be applied externally with perseverance, in the form of mustard plasters, stimulent embrocations baths and frictions. A large blister

should be placed over the liver and stomach; stimulating injections, brandy toddy, a pill of calomel and comp. ext. of colocynth or rhubarb, should be employed until reaction and free evacuations ensue, and after reaction has taken place, it will be prudent to continue the stimulant and laxative remedies, according to the necessity which may appear to exist; substituting mild medicines in the place of calomel.

But we may expect to encounter many symptoms of an urgent nature, which require immediate attention, as for example, incessant nausea and vomiting, rice water, or sanguineous evacuations, delirium, or stupor, unceasing restlessness, most painful spasms, great diminution or arrest of urinary secretion, or sometimes hurried or difficult breathing.

In the case of copious rice water evacuations, in addition to the external stimulant, laudanum, or paregoric must be added to the injections of quinine, and pills of calomel, quinine, camphor and capsicum, with brandy julep, or toddy, should be given at short intervals. Pepper or ginger tea, or brandy julep, will either frequently allay the irritability of the stomach, but if they should fail, it is needless to vex the stomach with purgatives, and we should content ourselves with simply the exhibition of an anodyne combined with some alkali, as syrup of morphine, with carb. of sodæ, or the latter with charcoal. So soon as nausea has ceased, the bowels will relax of themselves, or be acted on by the mildest purgatives; such as a weak infusion of rhubarb and manna, and magnesia, or a pill of blue mass, and rhubarb. With regard to hemorrhages from the bowels, unless excessive, I would not recommend by the mouth or anus, any of the astringent preparations. If they should become necessary, I believe a decoction of peruvian bark, with acet. plumb. would as likely be beneficial as any thing else. I never witnessed but one severe case of this kind, in which I attributed the hemorrhage to repeated large doses of calomel, notwithstanding the fact, that this remedy is highly recommended in small doses to stop bleeding from the bowels.

Where cases of delirium or stupor, and restlessness exist, the pouring of cold water over the head seems to have a happy

influence. It would be well in these cases to shave the head in the beginning, and so soon as tranquility was restored, to apply a large blister on the back of the head and neck. In cases of painful spasms, the common laudanum and ammoniæ liniment should be rubbed in freely. The arrest of urinary secretion is a most dangerous symptom—it marks a severe if not a fatal case. Nitrous drinks and emollient applications over the region of the bladder should be resorted to, to relieve the distressing symptoms.

A combination of the non-purgative, saline and alkaline remedies freely diluted, appear to me to act well in all our summer diseases. They should be given in the form of drinks, frequently repeated, and in small doses; and by the addition of epsom or glauber salts, in doses of from 5 to 10 grains, the bowels will be kept regular, and frequently be moved, when other active remedies seem but to aggravate nausea and constipation. In large doses, saline purgatives act very dfferently. They produce watery evacuation, and appear to favor the recurrence of the chill or fever.

Calomel, even at the present day, is regarded as the most efficient remedy in this disease, by many old practitioners; administered in heroic doses, after a vain use of other remedies, it often appears to exert a most salutary effect. I have seen more than one patient recover, and rapidly too, after abandoning all other remedies, and using calomel in repeated doses, of a hundred grains; and in these cases salivation is a rare result.

In 1837, I invited a disciple of Profesor Cooke to see a case of congestive fever, in the confirmed stage of collapse. I confess that I had abandoned the man as past all remedies. The case we both thought hopeless; but at his suggestion, calomel in 100 gr. doses were given every hour. Four doses were given (he was allowed claret wine ad libitum) when he commenced to rally, and was well in a few days.

Current Medical Literature.

SODIUM NITRITE IN THE TREATMENT OF EPILEPSY.

By W, T, Law, M.D. F.R.C.S., Eng.

In addition to the extensive list of remedies employed or recommended in the treatment of epilepsy, I wish to suggest a trial of another which I was led to select upon theoretical grounds in a case of this disease which recently came under my immediate and close observation for eighteen months. As evidence of my facilities for noting the effect of the remedies tried, it is proper to state that the patient, Mr. M., ætat 29, was received into my own house for supervision and treatment, and that arrangements were made by which any attacks occuring either out of doors or during the night could be noted. Briefly, the history and condition were as follows:—Patient's father died of apoplexy, but no other family story bearing on nervous disease could be elicited. Mr. M.'s habits were said to have been unexceptionable as regards drink and morals, and there was no suspicion of syphilis. In mind he had always been "below par," and though sent to various schools, learned very little. He had no fits at this time, but suffered from severe headaches which often kept him in bed. At length he entered a college, and after a good many years spent in trying too pass examinations had his first distinct attack of epilepsy about a year and a half before he came under my observation. From that time he had numerous fits, but as he was not under complete surveillance and the attacks were perhaps mostly nocturnal, it is impossible to estimate their frequency. In the summer of 1880, after a journey to see a relative, he had a seizure, followed by maniacal excitement for some hours, after which he was seen by Dr. Wilks, who recommended careful supervision in the house of a medical man. When he came under my charge I noticed that he was above the middle height, fair and muscularly well-developed; clean shaven, nearly bald, congested face, neck and hands. The latter were nearly always moist and often cold; nails much bitten. Contracted pupils; marked want of intelligence in manner, slow speech and great deliberation of movement. When walking, he partially extended his arms, as a rope-dancer might, and would touch any object he passed as an aid to muscular co-ordination, while the gait was jerky, uncertain and slightly ataxic in character. His mental powers were enfeebled and memory defective, though he exercised control over his property. In disposition he was reserved and secretive, and would carefully treasure up dirty fragments of paper and other rubbish found in the street. Curiosity and cunning were largely developed, and when a seizure was approaching, uncontrollable fits of giggling occurred. He

resented the imputation of ill-health strongly, and clung tenaciously to the hope that, contrary to the opinion of various medical authorities who had seen him, he would shortly be able to resume his college studies. His great dislike of medication and intense desire of concealing his fits when they occurred, rendered him difficult to treat and he would deceive me as to his sensations, condition of bowels, &c., whenever possible. After much trouble I got him to take one daily dose of bromide of potassium, forty grains in the morning, with which I at once began, as a wound on the bridge of the nose indicated a recent attack. From this date, August 9th, 1880, fits occurred at the rate of two a week on an average, but always during the night, until November 18th, when I watched a seizure from the commencement at about 9, P. M. He was dozing over a newspaper held upside down which he had been pretending to read, when a low, peculiar cry indicated an attack. The eyes became fixed and staring, the chin advanced, and the face livid (I noticed no initial pallor). The chest walls seemed motionless and respiration suspended, but a gurgling sound resembling retching closely followed the initial convulsion of the limbs, which began in the arms and legs, which were forcibly extended, the former being rotated inwards and the fingers extended. Both sides seemed equally affected, or nearly so. With this the head rotated strongly to the left, the jaws closed firmly, and the pupils slightly deviated from their usual contracted state Accompanied by deepening lividity, clonic spasms of the usual kind, and twitchings of the mouth succeeded, and I think most affected the right side. The convulsive stage lasted about twenty seconds, and terminated in relaxation and stupor; saliva tinged with blood from a bitten tongue running freely from the mouth. The lividity disappeared, and the pulse, which during the paroxysm had been frequent and tense, was now slowed and softened, and perspiration moistened the skin. The sphincters were unaffected, and I found the urine normal the next day. Thinking the bromide was losing its effect in warding off day seizures I gave borax till December 20th. In this time two day fits and seven at night were noted. Then followed bromide as before, with short intervals of iron and aloes, till May 30th, with the result of eleven attacks in the waking and fifteen in the sleeping state. Belladonna in twenty-drop doses with bromides of potassium and ammonium were given till October 30th, when three day and twelve night seizures were observed. Nitrite of sodium in twenty-grain doses was then administered until February 6th, when he passed from under my care. During this period a remarkable improvement took place. Three fits only were noted, diurnal on December 15th and January 10th, and nocturnal December 16th. During these latter months, the gait and general manner showed a change for the better. The giggling which formerly generally heralded a seizure almost entirely disappeared. A disposition to over-

eat, and post-prandial drowsiness, greatly lessened, and his friends declared they had never seen him look so well before. Among the few particulars, however, in which but little improvement took place, was one I omitted to mention in its proper place, an offensive exhalation from the skin resembling the odor of corduroy and differing from any I have observed among mental and nervous cases. To make the effect of remedies more easily apparent I subjoin a tabular statement, in which time is expressed by weeks in round numbers.

The general treatment was uniform, and consisted in careful dieting, restrictive in bulk, absence of all excitement, attention to the bowels as far as practicable, and a constant watchfulness to repress the tendency to mischievousness which so often accompanies brain deterioation.

Weeks.	Seasons.	Number of Fits.		Total	Remedies used,
		Day.	Night.		
14½	Summer.	—	28	28	Bromides of pot. sodium and ammonium.
4½	Winter.	2	7	9	Borax.
23	Winter and Spring.	11	15	26	Bromides with intervals of iron and aloes.
22	Summer.	3	12	15	Bromides with belladonna.
14	Winter.	2	1	3	Nitrate of sodium.

The object in this paper is to advocate the claim of nitrite of sodium to a trial in epilepsy. One case of course is of little value, and I am far from wishing to do more than suggest a trial, and as it is not likely to be equally valuable in all forms of this malady, I thought it best to describe rather fully the present case in which it seemed of great service. So far as I am aware, this drug has not been used as a remedy for epilepsy, but assuming that the nervous discharge or explosion is associated with cerebral anæmia—a view which receives clinical support from the initial pallor of the face and high tension of the radial pulse, as well as from the usefulness of belladonna in certain forms, and of nitrate of amyl during the paroxysm—it seemed natural to look for a remedy capable of influencing the vaso-motor apparatus, and, although I am aware that nitroglycerine—an agent of this class—failed in the hands of Dr. Gowers, I tried sodium nitrite, a drug whose action is believed to be similar to that of amyl nitrite, but more persistent, with the results shown in the above table. In this statement the number of seizures only is dealt with, but they really varied little in severity, as I have purposely excluded those slighter attacks of momentary duration which occurred now and then, and were not recorded.

On three or four occasions (under bromides) the bladder and rectum emptied themselves, but, so far as I know, evacuation

of the vesiculæ seminales, voluntary or otherwise, was not a feature of this case. The fits nearly always took place after dinner, from 8 to 9:30 P. M. Mr. M. denied any aura or warning, but I believe headache often heralded a seizure, as did certainly giggling without cause, and drowsiness. He would eat bread in large quantities if allowed, and I am firmly convinced of the truth of Dr. Radcliffe's dictum, that epileptics should be rather underfed than otherwise. It is unnecessary to dwell at further length upon the features of a case which, save in respect of treatment, is of no unusual kind, and I must therefore conclude my remarks with the hope that those members of the profession who have the opportunity will test the value of nitrite of sodium, and the nitrites generally, and make public their results.—*Practitioner*, June 2, 1882.

A CASE OF OLD HYSTERICAL CONTRACTURE SUDDENLY CURED BY THE ADMINISTRATION OF "FULMINANT PILLS" (MICA PANIS).

Cases of hysterical manifestations, especially of contracture cured by strong mental emotion, are not very rare; but, since non-scientific minds persist in attributing certain of these cures to super-natural agency, it is not without interest to report one in which it is impossible to admit the mysterious intervention of occult or imaginary personalties.

A girl, 28 years of age, upon admission into the hospital of La Charité, gave the following history. After an attack of chorea, at the age of twenty, she had persistent feebleness of the limbs (?), so that she was unable to walk for two years. She then was well the next two years, but being exposed to a fright, the chorea returned, and lasted five months; but this was followed by a sense of oppression and vomiting, which persisted for two years, when she entered the Charity Hospital, where she was vaccinated. This brought on a third attack of chorea, lasting two months only, but which was followed by contracture of both lower extremities. The patient was markedly hysterical, but there was no local anæsthesia at that time, although subsequently left hemi-anæsthesia was discovered. The condition of the lower extremities was that of spasmodic paraplegia. She had acquired the habit of receiving frequent hypodermic injections of morphia. As her demands for them were increasing, the attending physician, Landouzy, decided upon a a radical step, and told the patient that she could have no more morphia, at which she complained bitterly. She was then told that in place of the punctures she would receive a medicine much more active, but which must be used very sparingly, because it was a violent agent. She was then given two pills of *mica panis*, with the recommendation to take them in four doses,—that is to say, a half of a pill each night and morn-

ing. At the regular visit, the next morning, the patient, contrary to her custom, was found happy and smiling. "I wanted to poison myself," she said, "and I took both of the pills last evening at once, contrary to orders. They produced a terrible effect on me,—I feel them still boiling inside; but look at my limbs!" Then she got up and walked around, slightly dragging the soles of the feet, but using the limbs with considerable facility. She begged for another pill, "in order to cure the feet completely. This was conceded, and on the 10th of October the invalid, who had not quitted her bed for eight months, was able to go about and assist in the service of the wards. At the end of the month she left the hospital entirely well.—*Revue de Medecine*, September, 1882—*Medical Times*, October 21.

VACCINATION VS. PROTECTIVE INOCULATION.

Pasteur having conducted a series of experiments with regard to a certain form of contagious disease in cattle, the medical journals almost universally speak of the operation as charbon-vaccination. It is time that this abuse of the term vaccination were corrected. What Lady Mary Wortley Montague introduced into England as a prophylactic measure against small-pox was inoculation *with* small-pox. It had its inconveniences; it was uncertain in its effects, spreading the disease, and occasioning deaths now and then; but still it was based upon experience, and it served its purpose. When vaccination came, however, inoculation ceased by common consent, and it is now generally interdicted by law. Whatever refinements Pasteur and his school introduced with regard to the cultivation of the contagium vivum, they still propagate the disease by using the morbid products of the identical affection. All that they claim is that, by inducing a mild attack of the disease which the animal survives, it is shielded from subsequent attacks by the self-protective power of the malady itself. Now, vaccination in the human subject *never* causes small-pox.

Though Jenner and some of his successors believed that vaccinia is simply a modified form of small-pox, yet this remained until quite recently a probable hypothesis without proof. The experiments, however, of Dr. Voigt, Superintendent of the Viccine Institute at Hamburg (*Deutsche Vierteljahrsschrift für Oeffentliche Gesundheitspflege*, Bd. xiv. Heft 3), have, it is claimed, finally demonstrated conclusively the possibility of transmuting the most virulent variolous pus into vaccine lymph, which possesses all the usual characters, and which is now being used successfully for public vaccination in this Institute. But protective inoculation for charbon cannot be properly termed vaccination, the virus not being that of vaccinia, nor even derived from the cow.—*Medical Times*, October 21.

TREATMENT OF ACUTE DYSENTERY WITH ACONITE.

Dr. Wm. Owens reports 151 cases of acute dysentery occurring in the Convict Hospital, Port Blair, India, which were treated with tincture of aconite; all the cases were typical examples of acute dysentery, and all, with one exception, recovered. He states that he was led to give aconite a trial, as the remedy most likely to be successful, from the following consideration:—

(1) From its beneficial action in other acute inflammations.

(2) From its effect on the capillaries of the skin, which it dilates, thus relieving internal congestion.

(3) From its antipyretic action in febrile cases.

(4) From its sedative action on the mucous membrane of the stomach and intestines, and its beneficial action in some forms of dyspepsia. In the first case in which he tried this remedy he was somewhat diffident, and he had ten cases in which a combined treatment of ipecac and aconite was used. However, he soon discontinued the ipecac entirely, finding there was no occasion for its use.

Dr. Owen gives one minim every quarter of an hour for the first two hours, and a minim every subsequent hour, or thirty minims in twenty-four hours; this method he finds to be followed by the best results, inasmuch as the action of the medicine is more rapidly established, and an effect on the disease was more quickly produced than by other methods.—*Medical News—Canadian Journal of Medical Science.*

MINIMUM DOSES OF IODIDE POTASSIUM IN FRONTAL HEADACHES.

Dr. Haley draws attention to the powerful anti-cephalagic properties of this drug when used in small doses. As a rule, a heavy, dull headache situated over the brows, and accompanied by langour, chilliness, and a feeling of general discomfort, with distate for food which sometimes approaches to nausea, can be entirely removed in about ten minutes by a two-grain dose of iodide of potassium dissolved in about half a wineglassful of water, this being quietly sipped so that the whole quantity is consumed in about ten minutes. This class of headache seems to have no particular or definite cause, belonging apparently to the class of sympathetic headaches. In many cases the effect of these small doses is simply wonderful, and their great advantage is the rapidity with which they act.—*Australian Medical Journal. Ibid.*

BORACIC ACID OINTMENT.

M. J. L. Championnière recommends an ointment made of vaseline and boracic acid as an antiseptic mixture, which can

be preserved indefinitely and is of great value, being non-irritating.

It forms a bland ointment suitable for superficial ulcers or wounds which are not to be irritated; it is applied on a cloth, on salicylated or absorbent cotton batting.

It can be used with advantage as an application for eczema and intertrigo, which, although not parasitic, give rise to lesions containing and keeping them. There is no better topical remedy for the erythema of the buttocks of infants. It is an ointment always clean and aseptic to grease the finger and instruments. Wherever there is an irritated wound, it is a most valuable topical application.

Boracic acid is a less energetic antiseptic than carbolic acid; but its action is nevertheless powerful. The author has successfully employed it in very fetid eczemas, and in feted sweating of the feet. After washing the feet, the ointment is applied in the interdigital spaces; the effect is very good.

The following is the formula of the ointment:

Boracic acid finely powdered.....1 part.
Vaseline.....5 parts.

The acid must be very finely powdered and sifted and not dissolved in glycerine or alcohol, as this renders the mixture irritating.—*Jour. de Med. et de Chirurg Prat.—St. Louis Med. and Surg. Journal.*

TREATMENT OF PHTHISIS.

W. H. Hughes, M. D., in the *Medical Bulletin*, in an article entitled "Treatment of Phthisis," writes: While there has been advancement in the knowledge of the cause and symptoms of phthisis, the treatment has not progressed sufficiently to enable us to control its terrible effects to any degree. Having a large number of applicants suffering from this malady, he has adopted, after devoting considerable time and study to the various modes of treatment, a method which he has employed in practice and from which he has obtained valuable results. The agent he employs is petroleum mass. It acts as an anodyne alterative, and reduces the irritation and inflammation of the bronchi and trachea, relieves the cough, and by its healing and soothing qualities prevents further destruction of the organ. When an abscess has formed, a cicatrix may be secured which enables the lung to resist the deposits from becoming embedded in the tissues and prevents the formation of additional abcesses. Out of nearly one hundred cases Dr. Hughes has treated during the last thirteen months, there were but three whom this remedy would not relieve. Seven died, and sufferings were greatly relieved by the use of this remedy. The formula used is petroleum mass, one ounce; pow-

dered cubebs and dover's powder, each half an ounce; sulphate of cinchonidia, two drachms, make into pill mass. Divide into four grain pills; one every three or four hours. The following results are to be expected from its use: Diminished expectoration, alleviation of the cough, cessation of night sweats, disappearance of tightness and soreness of the chest, gradual restoration of appetite, digestion and strength. As no living thing can exist in petroleum oil, may not the favorable results of this remedy be due to its action on the microscopic parasite?—*Chicago Med. Rev.—Ibid.*

INFANTILE CONVULSIONS.

The adopted and regular treatment of M. Jules Simon, of the Hospital des Enfants Malades, for infantile convulsions is as follows: On arrival the first thing he orders is an injection of salt and water, salad oil, or glycerine, or honey, which he administers himself, as he has too often observed that the parents or the nurse have already lost their wits. If the teeth can be opened sufficiently, a vomitive is given, which clears the stomach of any food that could not be digested—the most frequent cause of convulsions. However, the attack continues but soon ceases on applying a handkerchief, on which a few drops of chloroform are poured to the mouth, which the child inhales largely. If convulsions re-appear the anæsthetic is renewed, and the child is placed in a mustard bath for a few minutes and then wiped dry and placed on his bed properly wrapped. Chloroform might be again administered if, after an interval, the child was seized again, and before leaving the nurse M. Simon prescribes a four-ounce potion containing sixteen grains of bromide of potassium, one grain of musk, and a proportional preparation of opium, for he does not believe that the brain is congested in these attacks, it is rather excited and the opium acts as a sedative. A teaspoonful of the mixture is given several times a day. On the following days the child is generally restless and irritable, and ready to be attacked again, but a small blister about an inch square is applied to the back of the neck and left on about three hours, when it is replaced by a poultice of linseed meal and gives most satisfactory results. M. Simon, in terminating, says "such is the treatment that I have instituted in my practice of every day.—*Medical Press and Circular.—Southern Practitioner.*

TREATMENT OF YELLOW FEVER BY THE PERMAGANATE OF POTASH.

It is well known that the Mexican government has offered a prize of five hundred thousand francs (cien mil pesos) to the

discoverer of a specific for yellow fever, and we learn from the *Chron. Med. Quir. de la Habana*, Feb. 1882, that Dr. Rosada claims to have found a treatment which, if not specific, at least is successful in saving a large number of cases—*Ibid.*

STUMOUS OPTHALMIA.

The physician is often called upon to treat cases of strumous opthalmia, children of a strumous habit, who suffer with sore eyes, and perhaps other evidences of scrofula, but in which the unpleasant condition of the eyes is the most prominent symptom. The lids are red and swollen, with numerous and frequently recurring minute pustular collections about the lashes, with some conjunctivitis and photophobia, etc., not only giving the eyes a very unpleasant appearance, but also preventing the patient from using them with any degree of comfort.

In these cases, in addition to the local treatment as sketched above, the internal use of sulphide of calcium is almost a specific. The good effects resulting from the use of sulphide of calcium in scrofulous sores, suppurating glands in the neck, and similar affections occurring in connection with this strumous diathesis, have been known for some time, this use of the remedy having been brought to the attention of the profession by Dr. Sydney Ringer; but it is of more recent date that it has been recommended in cases of blepharitis and strumous ophthalmia.

I have employed in a number of cases and with very satisfactory results; and, although my experience with it has not been sufficiently extended to be able to express a decided opinion, yet I feel that this remedy is destined to be a valuable one in the treatment of this class of cases. The testimony of others as to its efficacy is being gradually collected, and sulphide of calcium is assuming a high place in the therapeutics of strumous ophthalmia, blepharitis, phlyctenular keratitis, etc.

Of course, there are some cases it will fail to cure, but it often happens that the exception proves the rule. There are some cases of ague that quinine fails to cure, and yet no one doubts the value of quinine in the treatment of ague. But even though there are some cases of strumous opthalmia that sulphide of calcium will not cure, yet I think it cannot fail to be at least of partial benefit in every case, so that it should always be given a fair trial.—*Dr. C. H. Brown in The Medical and Surgical Reporter.*

CORNIL ON HYPODERMIC INJECTIONS OF MERCURY IN SYPHILIS.

Within the last 20 years hypodermic injection has been employed. Hebra, Hunter, Scarenzo, Lewin, Aimé, Martin, Lié-

geois, Dron and Diday have used it with success. Of all the different methods of giving mercury this is assuredly the one by which a certain determined dose can most readily be made to enter the system, and which causes the most immediate modifications in the syphilides. This method is largely employed in many large special hospitals, especially at Milan, Vienna, Stockholm. Injections were made by Liégeois twice daily, using a very weak solution; he introduced but one-seventy-fifth to one-thirty-eighth grain at each puncture. Stronger injections, such as Lewin employed, were only given at intervals of two days. Injections should be made in regions rich in connective tissue and poorly supplied with vessels and nerves, as the back, buttocks, scapular region, external aspect of the arm, etc. The inconvenience attending this form of injections is that at times they cause considerable pain, and are very apt to give rise to small subcutaneous abscesses, all the salts of mercury, especially the bichloride, being irritants. To guard against these accidents it is necessary to take the precaution to introduce the needle sufficiently deep into the subcutaneous connective tissue, and not to insert it twice in the same place, or very near a former puncture. Furthermore, it is also well to use at once a systematic method of massage over the small swelling caused by the injection. Bergh, of Stockholm (oral report), has never had any bad symptoms or abscesses caused by the hypodermic injections, because he has always resorted to massage in every case.—*Maryland Medical Journal.*

TREATMENT OF HYDROCELE BY THE INJECTION OF PURE CARBOLIC ACID.

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I was, therefore, prepared to accept a statement that came to my notice in the Philadelphia *Medical Times* of the issue of November 6th, 1880, by Dr. R. J. Levis, who advised that hydrocele be treated by the injection of a small quantity of pure carbolic acid into the sac of the tunica vaginalis, a procedure that he stated he had used since 1872. His method is to withdraw the fluid by an ordinary trocar, and then to introduce the long, slender nozzle of a syringe through the canula into the vaginal sac. By this means the carbolic acid is readily thrown into the serous cavity, and there is no danger of its being injected into the cellular tissue of the scrotum. The carbolic crystals are liquefied by slight heat or by the addition of a few drops of glycerine. The amount of carbolic acid which Dr. Levis injects is one-half a fluid drachm, and this is allowed to remain permanently in contact with the tunica vaginalis. The operation, he further states, is almost, if not entirely painless, because of the local anæsthetic action of the carbolic acid. Patients sometimes exclaim at the moment of

the introduction, but complain of a sense of numbness, rather than of pain. The pain is certainly much less than where tincture of iodine is employed. Care, however, should be observed to allow no acid to flow upon the surface of the scrotum, for pain and inflammation will follow such contact. Dr. Levis had never seen suppuration or sloughing follow this manner of dealing with hydrocele.

I was led, during the early portion of last winter, to adopt this mode of treatment, and though prepared by my previous experience to believe that the carbolic injections were not very irritating, yet I was most agreeably surprised to find that the strong acid was, in the instances which have come under my notice, absolutely painless, or so very slightly so as to be insignificant. In my services at Bellevue Hospital, as well as in private practice, I have used this injection in thirteen patients, four of whom had double hydrocele, with only one failure. In the male hydrocele both sacs were injected at the same sitting. In this instance there was reaccumulation, and a second injection of the pure carbolic acid, two weeks later, was followed by a cure. In this action I afterward learned how to precipitate, for the fluid, when reformed, will gradually disappear, as after an iodine injection. In a majority of instances there was not such a reacumulation of fluid, but there was considerable thickening of the whole tunica vaginalis, both parietal and visceral. This thickening will last three or four weeks, sometimes longer. Patients are at no time incapacitated from attending to their usual vocations, though Levis speaks of their being detained a day at most from such. In every instance the urine was carefelly tested for three or four days subsequent to the operation, in order to determine whether or not there had been absorption of carbolic acid. None was observed in any case. The quantity injected was one-half to one and one-half drachm.—*Robt. F. Weir in the Medical Record.*

IODOFORM IN DIABETES.

The last drug introduced into the treatment of diabetes mellitus is iodoform, which Prof. Moleschott, in a recent communication to the Academy of Medicine at Rome, states he has found to be very beneficial in five cases of that disease. The quantity of sugar excreted rapidly diminished in all the cases so treated. Small doses are sometimes productive of good results, but as much as forty and fifty centigrammes may be administered daily with impunity. The Professor employs cumarin—the odoriferous principle of the Tonquin bean—to overcome the unpleasant smell of iodoform. He prescribes iodoform, 1.0; extract of lettuce, 1.0; cumarin, 0.1; to be made into twenty pills with powered gum arabic, and to proceed from

one pill twice, to two pills four times in the twenty-four hours. —*Mississippi Valley Medical Monthly.*

SUBCUTANEOUS INJECTION OF ETHER IN PNEUMONIA.

From experience in fourteen cases, Dr. Barth, *Lyon Med.*, strongly advocates the subcutaneous injection of about one gramme of ether in adynamic pneumonia. Almost instantly respiration becomes easier, pulse gains in strength and fullness, while the color of the face becomes more natural. In two or three minutes the ethereal odor is noticed in the breath, showing that the volatile liquid has reached the air passages. It is necessary to use the injection at least twice a day, and in severe cases four doses may be thus administered in twenty-four hours without inconvenience. Dr. Barth has not exceeded this dose, nor has he experienced any trouble from the punctures, in the way of serious irritation.—*Glasgow Med. Journal. Mississippi Valley Medical Monthly.*

UREMIA.

In a case of scarlatinal nephritis, with convulsions, Dr. D'Espine, of Geneva, obtained good results by free venesection. On chemical analysis the blood was found to contain about twelve times the normal quantity of urea and three times the amount of potash. Two-thirds of the potash was found in the serum, whereas normally almost all the potash is contained in the globules.

Dr. D'Espine offers the following explanation of uremia: 1. An accumulation of potash in the serum, derived from the uneliminated detritus of red corpuscles, the destruction of which may be caused by the accumulation of urea in the blood. 2. To an enormous increase of the arterial tension in consequence of the direct action of the potash salts on the endocardium and cardiac nerves. Bleeding acts probably by eliminating toxic material and lowering arterial tension.—*Louisville Medical News.*

CAUSE OF DARK COMPLEXION OF CHICAGO LADIES.

Peoria Medical Monthly: A private letter from a valued correspondent contains the following, which is too good to be lost. He writes:

"I see Dr. Byford has greatly improved his work on 'Diseases of Women.' In the first edition 'nitrate of silver and its substitutes' played a very important part. When I lived in——, a lady friend visited Chicago and spent the summer there. On her return, I met her in company of several ladies, who brought

up the subject of complexion. The lady was asked if she had noticed the well-known fact that Chicago ladies were less fair than their Eastern sisters, and that Eastern ladies who went to Chicago soon lost their complexion, and if she thought the climate was the cause? The lady replied that she had noticed the fact and thought the climate might have something to do with it, but she had given the subject considerable attention, and had concluded that the reason in part was due to the fact that Dr. Byford treated female diseases exclusively with nitrate of silver. I judge, therefore, from his last edition, that the complexion of Chicago ladies will now improve.—*Michigan Med. News.*

SMALL-POX IN BIRDS.

The *British Medical Journal* contains some very excellent remarks on this subject. In a recent publication issued by the Washington Board of Health, attention is drawn to it. It stated that in Europe and Hindostan variola is so common in pigeons and poultry as to constitute a veritable plague. Thus Guersant records that out of a dovecot of one thousand scarce one hundred could be found that did not bear marks of the disease; while Tytler says the poultry yards in India were habitually depopulated by the plague. Bechstein and others claim that it is the true small-pox derived from the human being, and conveyable back to man; while others, like Foggia and Gilbert, that it is communicable to the sheep. That this affection has not been recognized may be due to a difference in the environment which modifies the infection, or perhaps to the fact that men and pigeons do not live so much in common here as in Italy and India. Such an occurrence under Italian skies should, however, demand a careful investigation into the reality of such affection in the United States (and especially in the Southern ones), during the prevalence of an epidemic of small-pox; so that whatever danger arises from this source may be detected and guarded against.—*Gaillard's Med. Jour.* May.

COTTON SEED IN SPASMODIC CROUP.

George L. Gray, M. D. (Miss. Val. Med. Monthly), claims that cotton seed is an efficient remedy in spasmodic croup. A handful of seeds is bruised and afterwards boiled for a few minutes in a quart of water. The decoction is allowed to stand for a short time, when it is strained, sweetened and cooled. The patient should now be given all it will drink of the medicine, or, if necessary, it may be poured down the child's throat. Relief is generally prompt, and sometimes without vomiting. If, however, the remedy be persistently given it will produce free emesis.—*Louisville Medical News.*

OLEATES IN SKIN DISEASE.

Dr. J. V. Shoemaker, of Philadelphia, in a paper read recently before the Medical Society of the State of Pennsylvania, and published in the *Medical Bulletin*, speaks strongly of the value of oleates in certain cutaneous affections. Oleate of zinc he recommended as the remedy in hyperidrosis and osmidrosis; oleate of aluminum as having a most decided action in checking muco-purulent discharges in eczema; oleate of iron as a mild astringent when brought in contact with an ulcerating surface; oleate of arsenic he stated will destroy cell infiltration in a comparatively painless manner, and is therefore useful in lupus and epithelioma; oleate of silver he regarded as a safe and efficacious remedy in erysipelas and as an application to boils and carbuncles. The superiority of the oleates over ordinary ointments was shown, he believed, in their deep penetration, their freedom from rancidity, their cleanliness, their great economy, and their antiseptic action.—*Southern Practitioner.*

A CASE OF SCIATICA PROMPTLY AND PERMANENTLY RELIEVED BY THE HYPODERMIC INJECION OF ICE-COLD WATER.

By S. Pollak, M. D.

The patient is advanced in years, has not been confined to bed by a day's sickness since 1849, is actively engaged in the practice of medicine. For the last ten or twelve years he had autumnal attacks of neuralgia in various form and locality, usually beginning with pleurodynia, then changing into lumbago and finally merging into sciatica. It never was of that severity as to unfit him for work, but sufficiently so to render locomotion very uncomfortable and painful; especially was the rising from a chair difficult, and effected only with the aid of the hand; but once up, and after making a few steps, no further inconvenience was experienced. The getting in and out of a buggy was not embarrassing. The duration of such an attack was from ten to fifteen days, when it gradually subsided. No cause can be assigned for these attacks except it be neuralgic influence. They were, however, occasionally provoked and aggravated by getting wet.

The usual routine treatment of neuropathic affections has been pursued here in which quinine occupied the front rank. Turkish bath, the cold pack, massage, electricity, Fowler's solution, hypodermic injection of morphine have been tried singly and in combination, with unsatisfactory result; the relief was only temporary and never entire. It usually subsided spontaneously, even when nothing was done.

This year the advent of the attack was anticipated nearly a month, without any assignable cause. The pain was more severe but not the disability. Having read in the *Lancet* and other journals, of the salutary effect of *ice water subcu-*

aneously applied, I decided to make the experiment. Pravaz's small glass syringe, holding about ten drops, was filled with ice water and injected in the spot about one inch behind and below the trochanter. The effect was magical. With the withdrawal of the hypodermic needle, the pain vanished and *it has not returned since.—St. Louis Medical and Surgical Journal*

TREATMENT OF PUERPERAL MASTITIS BY IODIDE OF LEAD OINTMENT.

The breast being thoroughly dried and perfectly cleansed, we smear its surface with the officinal ointment of the iodide of lead, and then gently rub it in until a considerable quantity is absorbed. Soak a piece of sheet-lint, of a size sufficient to cover the breast, in the following solution: acetate of lead, from 3 ij to ℥ ss to the pint, of a one-to-four solution of alcohol. If we desire a more elegant preparation, eau de cologne may be substituted. If there be much pain, it is often used to apply an ice-bladder upon the sheet-lint covering the breast. The lint should be frequently dipped in the lead lotion. The following phenomena will present themselves: first, a cessation of pain, fulness and uneasy feeling of distention, which is so annoying. It is common for the patient, who has been exhausted by pain, and consequent loss of sleep, to fall into a refreshing slumber even after the application is made. In the course of three or four hours, the breasts may be completely emptied by an experienced hand. The ointment should be used as a lubricant during the manipulation. By applying the iodide freely twice, or thrice, daily, the secretion will be gone in less than one week, as a rule. The pivotal point in the treatment is the use of this ointment; the evaporating lotion, and cold being only adjuncts. I have proved by repeated trials that, when applied alone, it is capable of exerting an absolute control over the secretion. I believe we here invoke a specific action from the lead iodide. A point of considerable moment is the partial anesthesia it is capable of inducing, which thus enables us to empty the glands, where before even slight pressure was badly borne. Its action without doubt extends to the epithelial cells and inhibits their secretory activity, as is seen in its action, in cases like the above, in causing the drying up of the secretion.

* * * * A word as to the use of belladonna. I must confess that I have met with poor success from its employment. My experience may have been exceptionally unfortunate, but reasoning from it alone, I could not recommend it as capable of accomplishing more than the expectant treatment—*Dr. Thomas T. Gaunt, in American Journal of Obstetrics*, October, 1882.—*North Carolina Medical Journal.*

THE TREATMENT OF CROUP WITH "HYDRARGYRI SULPHAS FLAVA."

In 1880, Dr. Fordyce Barker, of New York city, published an article in *The American Journal of Obstetrics* on the treatment of croup which was thorough, indeed, exhaustive in character, and elicited favorable comment at home and abroad. The chief reliance of Prof. Barker was upon the therapeutic properties in such cases of the turpeth mineral.

His reasoning, to my mind, was so clear, and his success so uniform, indeed, wonderful (for he tells us for twenty years since he began the use of this drug in croup, he has not lost a case), that I was determined to give the agent a fair and impartial trial.

Dr. Barker insists upon the early administration of the drug; indeed, he regards it of the first importance that it should be given in the very incipiency of the attack, and in order to meet this early necessity, he advises the families in which he is the medical attendant to keep turpeth mineral powders in three-grain doses always at hand, and to give one at the very beginning of the attack. For twelve years, after the manner of Dr. B., I have been using the turpeth mineral in the treatment of this disease, and I have, since the adoption of this plan, lost no case of croup.

My treatment has been, immediately upon being called to a case, without stopping to interrogate very closely as to whether I have a croup reflex, catarrhal, or true croup, to administer at once a dose of the agent (from two to five grains, according to age) in honey, syrup, or sugar of milk, and if there is no decided emesis within fifteen minutes, to repeat the dose; and I have never known it to fail to vomit at the second dose; almost immediately a satisfactory response is secured by the first administration. The vomiting is usually free, without effort and without depression. The powder is tasteless, small in bulk, prompt in action, and thorough in effect.

The virtues claimed for it are sedative and revulsive. "It depletes the mucus, which is thrown up; it removes from the larynx, by the forced expiration which it causes, any albuminous or fibrinous exudation which may be there in diffluent state, and which by remaining may become, subsequently, pseudo membrane; it acts as a powerful revulsive, and thus diminishes the capillary circulation in the trachea and layrnx; and thus it becomes a most effective agent in arresting the inflammatory forces."

If the croup persists, after removing the causes of reflex action, then, of course, other therapeutic agencies will need to be essayed; but throughout the attack, be it short or long, whenever the breathing becomes suffocative from the accumulation of mucus in trachea or larynx, I give the turpeth mineral in the manner and according to the conditions and

plan above designated.—E. R. Duval in *Ark. State Transac. tions.—Southern Practitioner.*

HYDROBROMIC ACID.

Dr. W. B. Moir says, in the *Lancet*, that he has obtained some excellent results from the use of this acid. A young lady complaining of severe and frequent headaches, accompanied with flushing of the face, and at times with ringing in the ears, was encountered. She seemed perfectly healthy, and there was no appreciable cause for this condition. She was ordered fifteen minims of the acid, thrice daily, after meals, in a little sweetened water. This treatment was continued for three weeks (the dose being increased first to twenty and subsequently to twenty-five minims). The happiest possible results ensued, and complete relief was afforded. Given in combination with quinine, he has found it to mitigate or entirely prevent the headache which often accompanies the use of that drug. In a case of persistent toothache, occurring during pregnancy, he obtained very satisfactory results from the use of this acid. —*Med. and Surg. Reporter.*

USE OF NITRITE OF AMYL IN PARTURITION.

Dr. Fancourt Barnes, physician to the British Lying-in-Hospital, and assistant physician to the Royal Maternaty Charity, reports in the *British Medical Journal*, for March, 1882, the use of amyl nitrite to counteract the effects of ergot. The midwife hoping to hasten the third stage of labor had given the patient ergot, directly after the child was born, which caused hour-glass contraction of the uterus. The os internum, and muscular fibers above it were so contracted as only to admit a finger. The umbilical cord had been separated from the placenta. He administered three drops of the nitrite to the patient by inhalation, which immediately arrested the uterine spasm, so that the os, that had been absolutely undilatable, steadily yielded under the influence of the drug, till he was enabled to introduce the whole hand into the uterus and detach the placenta, which was universally adherent. There was no hemorrhage whatever, and the placenta, itself presented a remarkably exsanguine appearance.—*Medical Tribune.*

CARBONATE OF AMMONIA AS A STIMULANT.

Dr. E. P. Brewer takes the position that the stimulating properties possessed by this drug are owing to evolution of free ammonia while in process of combining with the hydrochloric acid of the gastric juice.

In support of this view, he states that observations drawn from forty-nine experiments prove—

1st. Carbonate of ammonia, administered by the rectum, cellular tissue, and intestine, is almost completely robbed of its stimulating properties.

2d. By the stomach it acts with great power when we permit the full play of the acid gastric juice; the converse being apparent when we neutralize the acid of the gastric juice.

3d. That the ultimate results of the chemical union is a product totally different in power and latitude of action from carbonate of ammonia.

Analyses of blood made soon after the exhibition of a dose of carbonate of ammonia show an excess of free ammonia.—*Am. Jour. of the Med. Sci.*, July, '82.—*St. Louis Courier of Medicine.*

INHALATION OF MEDICATED VAPORS IN DISEASES OF THE RESPIRATORY ORGANS.

Guillemin (*Archives Méd. Belges—Lond. Record*) summarizes his views as follows:

1. The affections of the mucous membrane of the respiratory passages may in certain cases be advantageously treated by inhalations of medicated vapors.

2. In the first stage of acute inflammation of this mucous membrane, pain, cough, and painful sensations, which are the consequence of irritation and dryness, are rapidly calmed by inhalations of warm, moist, and aromatic vapors.

3. The calming action is still more decided if to the liquid, which serves for inhalation, there be added a small quantity of certain volatile calmative substances such as ether, distilled cherry-laurel water, or conium.

4. Frequently renewed inhalations of essence of turpentine, when they are administered at the commencement of the first period of inflammation, may arrest its progress.

5. The vapor of iodine exercises an irritant action on the mucous membrane of the air-passages. It induces efforts of coughing, and augments the secretion of the mucous of the air-passages. This irritating action may be utilized: (*a.*) To diminish the swelling of the mucous membrane by causing the inflammation to pass from the first to the second stage; this indication is present especially in cases where the inflammation occupies the small bronchi; the swelling of the mucous membrane is sufficient to give rise to fear of respiratory insufficiency. (*b.*) To diminish the viscosity of the products of morbid secretion by their admixture with the mucus, of which the vapors increase the formation. (*c.*) To induce efforts to cough, and to disembarrass the air-passages from the products which are there accumulated.

6. It is not only by its irritating properties that the vapor of iodine modifies the mucous membrane of the air-passages. Iodine in reality possesses the property of stopping purulent

secretion, and, on the other hand, it arrests and prevents putrescence. Thus, when the mucous membrane of the air-passages yields a purulent secretion, resulting either from an acute inflammation in the third stage, or from a chronic inflammation, the inhalations of iodine will determine by degrees the quantity of pus, and finish in certain cases by entirely changing the nature of the secretion, which becomes completely mucous.

7. Although the essence of turpentine, in the fluid condition, is a sufficiently powerful irritant for the tissues with which it is placed in contact, inhalation of this essence is easily supported by the mucous membrane of the air-passages. It only brings on very moderate irritation, and very rarely provokes fits of coughing.

8. When the mucous membrane is affected, and yields a product of secretion, these vapors have the effect of diminishing the quantity and augmenting the consistence of this.

9. If the product of secretion be purulent, the inhalation of essence of turpentine, continued during a sufficiently long time, progressively diminishing the quantity of pus, may, in certain cases, completely stop the secretion. The inhalations are indicated in all affections of the larynx, of the trachea, and of the bronchi, when accompanied by a very copious muco-purulent secretion without viscosities. On the other hand, the use of them must be avoided whenever expectoration is difficult, in consequence of the too great viscosity of the products of secretion.

10. In cases when these products are at the same time very copious and very viscous, it is possible, by alternate inhalations of vapors of idoine and vapors of turpentine, to rapidly diminish the quantity of secretion without increasing its viscosity. The inhalation of iodine should always be used in the first instance.

11. Inhalation of essence of turpentine is indicated in hæmoptysis, and is very successful in cases of hæmoptysis of average intensity.—*Detroit Lancet.—The Chicago Medical Journal and Examiner.*

THE ADMINISTRATION OF CHLOROFORM.

The *Gazette des Hopitaux*, at the end of the *resume* of the prolonged discussion on this subject which has just terminated at the Academie de Medicine, furnishes the following account of the rules of procedure observed by a *collaborateur* who has been much employed, with constant success, in the administration of chloroform during the last ten years:

1. The compress is to be preferred to all other means. A handkerchief is to be had everywhere, and alarms the patient less than anything else.

2. Fold the handkerchief into the form of the mouth of a

horn, and keep it closely pressed against the point of the nose; but only pour the chloroform on the part of it which is not directly in contact with the skin.

3. Its application should be intermitted, but this need not be done in the precisely-regulated manner recommended by Prof. Gosselin.

4. Give very little chloroform at the commencement, in order to accustom the patient to it and prepare him for the feeling of suffocation. Then, when the first inspirations are over, pour on the chloroform very often, otherwise much time will be lost and complete anesthesia obtained only with difficulty.

5. Before making the application take care that no article of dress constricts the patient, removing even the string of a cap.

6. Expose the epigastrium, and from the very commencement keep the eye upon it, and *constantly* watch the respiration, without caring about the pulse.

7. Always have a forceps within reach.

8. As soon as the respiration becomes noisy and stertorous, remove the compress and allow the patient to breathe fresh air for a time.

9. When respiration is arrested, seize the tongue with the forceps and draw it out, and immediately commence artificial respiration. If the respiration is not re-established after a few seconds, place the head low, forcibly flagellate the cheeks, keep the tongue out, and continue the artificial respiration for five, ten, fifteen, or even twenty minutes, if necessary.

10. When the respiration is noisy, pass into the back of the throat a sponge mounted on a forceps, in order to remove the mucosities existing there, as they frequently do in patients suffering from colds.

11. There is but one contra-indication to the employment of chloroform—namely, advanced phthisis. Affections of the heart are not contra-indications.

12. Hysterical subjects should be distrusted.

13. Alcoholic subjects are very long and difficult in being brought under the influence of chloroform, but they may take it without danger.—*Med. Times and Gazette.*

ALCOHOL.

Dr. B. F. Ward, President of the Mississippi State Medical Association thus closes his elaborate address:

The people of the United States drink whisky, and they are the most violent nation on earth. They rush to victory, and rush to defeat—rush to success, and rush to failure—they are wild in stocks, corporations, monopolies and speculation—on inventions, new enterprises, gigantic schemes and gambling, from "keno" to cotton futures. There are more reckless infractions of law here than in any other part of the civilized

world; more strange, monstrous and unaccountable destruction of human life, as parents killing children, and children killing parents; brothers killing brothers; husbands and wives killing each other; and lovers murdering sweethearts. Every newspaper in the land teems with recital of these horrors till the heart sickens at their perusal. This is peculiarly true of the New England States, and the cities of the North and West, where there is so much more alcohol consumed than among the agricultural classes of the Western and Southern States.

Grand juries tell us, in some sections, that ninety per cent. of crimes reported to them, are the outgrowth, directly or indirectly, of alcohol.

The humblest foreigner that visits these shores is impressed with the lawlessness and crime of this great, progressive, liberty-loving country.

The truth is, gentlemen, the brains of this nation are on fire with alcohol, both directly and by inheritance.

If you are satisfied as to its pernicious effects, are you satisfied that its therapeutic properties are even respectable?

If it vitiates the blood, impairs its plasticity, reduces its coagulability, and loads it with non-eliminated effete matter; if it begets a hemorrhagic tendency, and breaks down the healing capacity in wounds and disease; if it establishes morbid processes in all the important organs and tissues; if it diminishes the resistance of the system to the action of cold; if it enfeebles the working capacity of mind and body; if it inaugurates fatty degeneration and subsequent anæmia, emaciation and atrophy, by depraving the digestive, assimilative and nutritive forces; it entails these and other vices, mentally and physically, upon subsequent generations, whence come its healing properties, and what are they?

Do you want a stimulant and alterative in pneumonia? Quinine and ammonia are vastly superior to alcohol.

Do you want to equalize the circulation and distribute the nerve forces in congestion?

Quinine, opium and counter-irritation outrank it a hundred fold.

Do you want to sustain the flagging energies in typhoid fever, and other low forms of wasting disease? Coffee, tea, sweet milk, chicken broth, beef tea, etc., fulfill all the indications without the aid of alcohol.

Its reputation in phthisis and tuberculosis, has been acquired by being administered in connection with other carbonaceous and oleaginous agents, together with nutritious diet and various hygenic measures. It is extremely doubtful whether, taken alone and unaided in these conditions, it is entitled to any respect.

Perhaps we are reminded that its place cannot be supplied in traumatic shock. If you will pardon an allusion to personal

experience, I will say that my observation, for four years on the great battle fields of Virginia, Pennsylvania and Maryland, will doubtless comport with that of many of you whose military practice was more extensive than mine, that in the depression of shock and the exhaustion of hemorrhage, opium, in its various preparations, is always and immeasurably superior to alcohol. Does it ever become, in the human system, an element of nutrition? The most eminent physiologists in the world state it as an absolute rule, that no material or organic compound that contributes to the animal tissues any of the essential elements of nutrition, ever exerts upon these tissues, by its presence, a deleterious or poisonous influence. In other words if it is food it cannot in the nature of things be poison; if it is poison it cannot be food. Hence the accumulation of adipose tissue, that sometimes occurs under its influence, is only a degenerative process, resulting in the formation of the lowest order of tissue at the expense of the more important and more highly organized.—*Transactions Miss. State Med. Association.*

INCISION OF THE TRIGONE.

The Edinburgh *Medical Journal* says that Sonneburg, in *Centralblatt für Chirurgie*, states that his operation has been twice successfully performed in children. It is necessary that the calculus can be felt through the rectum, and that during anæsthesia it can thus be felt and drawn backward. The patient, being slightly narcotized, stands in front of an attendant, resting his head and shoulders in the latter's lap. The operator then introduces his forefinger into the rectum, pushes the peritoneal fold upward (apparently easily felt?), finds and grasps the stone, and draws the latter backward towards the gut. A vertical incision upon the stone is now made as far as the edge of the prostrate, and the calculus is pressed through the wound. On the bladder resuming its normal position the incision is found to be very small. The attendant hemorrhage is slight, and the fistulæ healed in from 17 to 35 days. This method has the advantage of leaving the sphincters, the prostrate, and the urethra intact, and seems to resemble the old method of Celsus. It has not yet been tried in the case of adults, and experience only can decide whether the fistulæ always heal as well as in the cases cited.—*Medical and Surgical Reporter.*

OIL OF PEPPERMENT IN ZONA.

Dr. Meredith writes to the Birmingham *Medical Review*, that he has found the oleum menthæ pip. more effective than any other form of anodyne application he has ever tried, in allaying the neuralgic pains so often piteously complained of in

cases of herpes zoster. These distressing pains, worse in elderly people, are complained of often when the eruption has disappeared; but painting the affected parts over with oleum menthæ pip. nearly always affords speedy relief. He has painted the oil over the eruption when it was out in a fresh, florid condition, and that with great relief to the patient. The value of this application in pains of neuralgic character deserves to to be better known than it is.—*Med. and Surg. Rep.*

AMERICAN ORIGIN OF SYPHILIS.

A late number of *Lyon Medical* contains an article by Dr. Rollet which is intended to revive the old theory of the American origin of syphilis. Touching this question the Abbe Raynal, distinguished as one of the ablest philosophers and historians of his day, wrote many years ago the following, which we do not recollect to have seen elsewhere:

"The Spaniards found in America that the men were in general addicted to that shameful kind of debauchery which shocks nature, and perverts animal instincts—more easy to be conceived than explained with decency. Those hunting parties, in which the men were frequently absent from the women for whole months, contributed to familiarize men more with each other. This vice is, therefore, in these countries nothing more than the consequence of a universal and violent passion, which in civilized nations tramples upon honor, virtue, decency, probity, etc. There are some actions to which civilized people have with reason attached moral ideas, which have never entered the minds of savages. The arrival of the European raised new ideas in the American women. They threw themselves without reluctance into the arms of these libidinous strangers. The women who had been hitherto too much neglected, boldly tramping on the carcases of their children and of their murdered husbands, went to seek their destroyers even in their camp, in order to entice them to share the ardent transports with which they were devoured. To this licentiousness and vice the Spaniards have attributed the origin of a disgraceful and destructive disease, which is generally thought to have been unknown in Europe before the discovery of America."

The general tone of the Abbe's writings does not incline one to the belief that the Spaniards were any purer in morals when they arrived in America than were the people they discovered. The discovery of the lesions in the skulls of Egyptian mummies, said to be peculiar to bone syphilis, is strong evidence of the pre-Columbian origin of the disease. The question of the origin of syphilis is by no means threadbare. Bvt we believe that those members of the profession who have given it most thought are quite unanimous in opinion that syphilis is probably as old as man's moral nature—whatever that may be.—*Mich. Med. News.*

TREATMENT OF ACNE ROSACEA.

At the meeting of the Harveian Society, held April 27th, 1882, Mr. Malcolm Morris gave a short account of the treatment of severe cases of acne rosacea by scarification. He pointed out that there were two classes of cases: the one consisted of acne spots, surrounded by red patches, the nose being considerably enlarged from hypertrophy of the tissues; in the other there was flushing of the nose, erythema, a varicose condition of the veins, and hypertrophy without acne. It was in the latter class of case that Mr. Morris avocated sacrification. This condition of the nose occurred in people of feeble circulation, whose hands were generally cold, and who were easily affected by changes of temperature; in a hot room the nose itched, and caused great discomfort; when exposed to cold there was great pain. The operation of sacrification Mr. Morris performs as follows: First of all, the nostrils are filled with cotton wool to make the skin tense; next all the blood-vessels are slit up throughout their length by a knife double-edged at the point, then with an instrument having a number of fine blades close together, the vessels are thoroughly divided transversely: free hemorrhage follows, which must be encouraged, and is benefical. The clots and serum are absorbed by blotting paper, and the patient is enjoined not to touch the nose for several days. The sacrifications heal in a few days, and leave no scars. This operation is to be repeated a number of times until the nose is reduced to normal. Mr. Morris had scarified 28 cases successfully, one which was done in 1879 has remained well ever since.—*British Medical Journal*, May, 1882.

The above mode of treatment is a modification of that employed by Hebra and Volkmann. Hebra employed a double-edged lancet-shaped needle, with a shoulder 2mm. from the point, to prevent it going too far into the skin. With this instrument the vessels were punctured deeply and rapidly. The punctures were made in horizontal rows. In mild cases the repetition of the punctures usually was not necessary. In the severer forms Hebra employed Volkmann's method, viz., shaving or scraping off the inflammatory products and hypertrophied masses with a Volkmann's spoon. The operation is not a painful one. He employed this method also to remove nævi, port wine stains and superficial taleangiectasis. The epidermis only should be removed. In the mild cases without hypertrophy, and with the formation of pustules, I have found that the evacuation of the pustules as soon as formed and the nightly application of sulphur ointment prove very beneficial. The ointment should be washed off in the morning, and the nose rubbed with a soft flannel, covered with the lather of Pear's transparent soap before being reapplied in the evening. I have also occasionally seen benefit derived from the application of chrysophanic ointment, 20 grs. to the ounce.

Dr. J. H. Staines, in a paper read before the Cambridge Medical Society, on the "Nature and Treatment of Acne (*British Medical Journal*, June 24, 1882), referring to acne rosacea, dwelt on the necessity of simple diet, the avoidance of alcoholic stimulants, and the use of soap and water locally. He also recommended the application as many as 12 or 15 times daily of a lotion containing precipitated sulphur, camphor, glycerine and lime water. He spoke of the advantages of local depletion, and described an instrument devised by Volkmann for producing multiple punctures. In ordinary acne he advocated the use of precipitated sulphur, in the proportion of 4 drachms to 5 ounces of lime water, with 3 drachms glycerine and a little spirits of camphor.—*Canada Medical and Surgical Journal. Michigan Med. News.*

TO HASTEN THE ACTION OF QUININE.

Dr. Starke (*Berliner Klin Wochenschrift*) advises that before swallowing powder or pills of quinine, a weak tartaric acid lemonade be taken. This procedure not only greatly accelerates the solution and absorption of the quinine, rendering its physiological action much more prompt, but also obviates that unpleasant gastric irritability so common after the administration of large doses of this drug.—*Maryland Medical Journal.*

THE TRANSMISSION OF SYPHILIS.

From observations made on one hundred and nineteen syphilitic families, KASSOWITZ comes to the following conclusions:

1. A healthy woman can, without herself being infected, bear a child who inherits syphilis from its father.

2. A child may be born untainted if its parents, at the time of conception, are healthy, even if the mother should acquire syphilis during her pregnancy.

CASPANY is strongly opposed to this view. Even if one holds that the syphilitic poison is located in the cellular elements, the impossibility of their diapedesis into the fœtal blood has never been proved. Caspany has, moreover, succeeded in finding granules of cinnabar in great number in the blood of the fœtus in pregnant rabbits in whose jugular vein he injected an emulsion of cinnabar. He does not state as to whether this transfer occurred through the white corpuscles or not, but this mode is rendered probable from the experiments of Max Schultze.

Generally, the conditions demanded by Fournier as to the advisability of marriage of syphilitic are accepted.

1. At least three to five years must have passed from the date of infection.

2. Thorough mercurial treatment must have been employed.
3. If either or both parents are syphilitic before conception, the child may become syphilitic.
4. If both parents are sound at the time of conception, and the mother subsequently becomes syphilitic, the disease may be transferred through the placental circulation, and the child be born with congenital syphilis.
5. If the father is syphilitic before the conception, and the mother sound and not infected by the father, the syphilitic poison may reach the mother through the placental circulation from the child, and the mother either rendered syphilitic or her constitution so changed that she obtains an immunity to the disease.

The last opinion is only advanced with considerable reserve. —*Deutsche Med. Woch.*, July 29, 1882.—*Medical News.*

ETHER-INHALATIONS IN ANGINA FAUCIUM.

Prof. Concato, of Bologna, has, for the last year or so, been accustomed to administer ether-spray as an inhalation in sore-throat. His method is simple. The patient takes the exit-tube of a Richardson's spray-producer in his mouth; sulphuric ether is sprayed against the pharynx for three minutes, and the treatment is repeated every three hours. Six cases so treated were cured without other means. The cases are all described as "anginas," of what variety is not quite clear. Each case, however, began with a rigor and a sharp attack of fever, with a temperature of 40° C. (104° F). Swelling of the sub-maxillary glands in nearly all the cases, and pain and difficulty of swallowing in all of them, were noted. The tonsils were always swollen and protruding. One of the patients, a girl of 11, had scarlatina succeeding to the angina. Another patient, whose attack of sore-throat lasted eleven days, and was very severe, had enlarged spleen. Four or five days was the average duration of the attack; one patient, however, attended by Prof. Concato at home, got well in twelve hours. It is set down as an advantage of the ether treatment that it very speedily puts an end to the local pain and diminishes the swelling, and so quickly restores the pewer of easy swallowing. In some cases the fever quickly subsides at the same time. The treatment is worthy of further trial. (*Rivista clin. di Bologna*, No. 3, 1882). *The Practitioner.*

HYSTERO-LAPAROTOMY DURING PREGNANCY FROM A FALSE DIAGNOSIS.

Reimann (*Centralb. f. Gynecol.*, No. 15, 1882) reports the case of a Jewess, aged thirty-two, with a tumor which the

attending physician diagnosed as ovarian. At the first examination, he thought he detected signs of pregnancy, but later could not find them. A surgeon was called to operate, and after careful examination did so, supported by two statements, first, that of the woman that she had had no connection with a man for over a year, and second, that of the assistants, who (falsely) stated that the physician had introduced a probe, and found the uterus not enlarged. The operator made a small abdominal incision, introduced two fingers, and as there were no adhesions, punctured the supposed tumor, when, to his astonishment, there was a gush of liquor amnii, and on introducing the finger, parts of the child in utero could be felt. There was no longer any doubt. The uterus was laid open, its contents removed, and the wound sewed up. The child, eight months, lived about fifteen minutes. The mother died on the third day of peritonitis. The case had been brought to trial by court, and is not yet ended.—*American Journal of Obstetrics*, September, 1882.—*Cincinnati Medical News.*

ERGOT IN TYPHOID FEVER.

M. Duboue recommends in a paper addressed to the Academy of Medicine, the administration of ergot of rye in typhoid fever. He advises it be given in substance, before eating, in doses, from 1½ to 3 grammes for adults, in divided doses per diem, and from 0.40 to 1 gramme to children. The quantity to be regulated by the temperature or general condition of the patient. He states that the remedy is applicable at all periods, and in all forms of typhoid fever, without exception. In 51 cases he had 3 deaths or 6 per cent.—*L'Union Medical—Canadian Journal.*

CHOLERA INFANTUM.

Dr. Holmes, of Chatham, Ont., read a paper on cholera infantum, from which the following conclusions were deduced: 1. Secure for every child proper sanitary conditions. 2. Only resort to artificial feeding when no other course can be adopted. 3. When obliged to feed a child artificially, regulate in the strictest manner the quantity and quality of the food, and persist in none that experience shows to disagree. 4. Maintain the child's temperature at or near the normal, by means of cold sponging. 5. Avoid astringents and opiates. 6 Rely upon laxatives combined with very minute doses of hydrargyrum, frequently repeated. The importance of carrying out the fourth indication was considered very great.—*Ibid*

NITRO-GLYCERINE IN THE TREATMENT OF HEART DISEASE AND PUERPERAL CONVULSIONS.†

The physiological action of this drug was studied by Lauder Brunton, whose paper was contributed to the St. Bartholomew Hospital Report for 1876. It was introduced to the profession by D. Murrell. This drug is similar in its action to nitrite of amyl, but its effects come on more slowly, within three minutes, and continue from four to six hours, when it may be repeated. A solution is the form most used, one per cent. in spirits of wine. It is nearly tasteless. The usual dose is one minim, or less, taken in water or placed on the tongue. This should never be exceeded in the beginning, as even this small quantity has been known to cause serious symptoms, though never fatal results. It paralyzes the vaso-motor centres, and the peripheral arterioles are dilated.

Dr. Green has found that while it is useful in almost all cases of heart disease, its greatest benefit will be observed in angina pectoris, and in weak, dilated, and fatty heart. He has used the drug for more than two years, and is more and more pleased with its value. A number of cases in which the drug was used are cited. Sudden congestions of the lungs in cardiac disease are relieved by the flow of blood to the surface, which is brought about by this remedy. In another journal ‡ the same writer gives an account of the successful use of this drug in puerperal convulsions. He believes that there are several causes of puerperal convulsions, but the largest number of cases are the result of a high tension of the arteries, caused by their containing blood which has been imperfectly depurated, probably owing to pressure upon the renal arteries by the gravid uterus. The next most frequent cause is sudden or exhaustive hæmorrhage. In both these cases the convulsion is probably the result of an anæmic condition of the brain, which may be relieved by this drug.—*Boston Medical and Surg. Journal.*

TEPID WATER AND SOLUTION OF QUININE IN CHRONIC CYSTITS.

In chronic cystits accompanied by a little fever, ammoniacal urine, and charged with mucus and frequent desire to micturate, M. Thornton (*Medical Press and Circular*), after emptying the bladder, recommends the injection of at first four ounces of tepid water, which is allowed to run out immediately afterwards; then an injection of the third part of the following solution: Quinine, gr. xvj., sulphuric acid, q. s., distilled water, ℥x. The liquid thus injected is maintained some seconds in the bladder, after which two-thirds are allowed to

† W. E. Green, M. R. C. S., Practitioner, February, 1882, page 103.
‡ British Medical Journal, April 22, 1882.

flow out, while the remainder is left for an hour in the urinary reservoir. This injection produces a very slight smarting, and after a treatment of some days the urine becomes acid and no longer contains mucus. — *Monthly Review of Medicine and Pharmacy.*

THE USE OF IODOFORM IN TUBERCULAR AFFECTIONS.

By Dr. B. Küssner (*Deutsche Med. Wochenschrift*, Nr. 17, 1882.) The author in the present paper, gives an account of his investigations as to the value of iodoform in tubercular affections of the larynx and lungs. With respect to its use in laryngeal phthisis, he states that he has seen numbers of cases get well under its use; and not only those in whom the disease was mild and the ulcers superficial, but also much more aggravated ones, where the ulcers were deep and there was much perichondrial swelling.

At first he pencilled the larynx with a mixture of iodoform and glycerine, in the proportion of 1 part of the former to 10 of the latter. Subsequently, he blew the powdered iodoform on the diseased surface with a common powder blower. This was done once a day. He advises, also, that the iodoform be administered by inhalation three or four times a day, according to the following method: Ten ccm. of a 10 per cent. solution of iodoform in alcohol, is placed in the glass receptacle of an ordinary inhaling apparatus, and to this is added twenty ccm. of water. It is the "emulsion" thus made which is used as an inhalation. A pure alcoholic solution is too irritating; and though iodoform is very insoluble in water, Küssner states that the "emulsion," as he calls it, made in the manner stated above, has given him good results.

Under the use of iodoform, he has seen characteristic tubercular ulcers of the larynx heal; and he thinks that the agent not only exerts an antiseptic action, but it also has a *specific* effect in tubercular cases.

With reference to its use in cases of pulmonary tuberculosis, when the larynx is not involved, he states that while it is, of course, very difficult to judge of the effect of any remedy in this disease, unless the patient can be kept under observation for years, still he has seen inhalations of iodoform cause a diminution of cough and expectoration, and also an entire disappearance of hectic fever. "Of course," he says, "this is not to be expected in all cases;" and he cautions his readers against the view that it is a specific in the sense that *all* cases are cured by it. This was claimed for benzoate of soda a few years ago, and the hopes to which such claims gave rise were very soon dissipated.

Occasional failures of the treatment, however, do not, he thinks, disprove the theory that iodoform has an anti-tubercular action; and he refers to the fact, that the antiseptic

treatment of open wounds frequently fails because the agent used is not brought directly in contact with every part of the injured or diseased surface. The impossibility of bringing the iodoform into contact with every diseased spot in the lungs, will readily be conceded; and it is to this circumstance that Küssner attributes the failure of the treatment in some cases.—*Virginia Medical Monthly.*

WILLOW LEAVES IN AGUE.

The *Lancet* says that an Indian surgeon, Chetan Shah by name, has recently revived the use of willow leaves in intermittent fever. This is an old remedy, now almost forgotten in Europe, while the leaves of several species of willow are still largely prescribed by hakims of India and Afghanistan, especially in the form of a distillate. Among the lower classes of Cabul, and especially in women, quinine was found to irritate the bowels, while the juice of the fresh willow leaves, largely diluted with water, rarely failed to cure intermittent fever. In pregnant women the willow leaf is almost always found preferable to quinine.—*Med. and Surg. Reporter.*

HYDROPHOBIA FROM FEAR.

The *Gazette des Hopitaux*, while noticing a case of alleged recovery from hydrophobia related to the Académie de Médicine, observes that it is often difficult to make the distinction between true hydrophobia, due to the absorption of the rapid virus, and the symptoms of hydrophobia, caused by fear of the disease. Was it really hydrophobia of which a woman died at the Hôtel-Dieu, with what seemed to be all the symptoms of the disease? Several months before, this woman, a street vender, had been bitten by a dog as she was passing Notre Dame, and went at once and had the wound cauterized at the Hôtel-Dieu. From that time she continued perfectly well, until one day, when she was pushing her barrow before the Hôtel-Dieu, she was recognized by one of the students, who called out to her, "Holloa! you are not dead yet, then! The dog which bit your thigh was downright mad, as they found out at Alfort!" At the very instant the poor woman was seized with a violent pharyngeal spasm, and was at once taken to the Hôtel-Dieu, where she died with all the symptoms of hydrophobia.—*Boston Journal of Chemistry.*

GRAVES' DISEASE.

Here is a case that you will be interested in. You will observe, first, that there is swelling in the neck. I have not seen her before, but the case struck me in an instant as she

entered. Second, there is some degree of prominence, not remarkable, of the eyes. And third, I suppose we shall find the pulse beat at the rate of 120, perhaps beating more rapidly than under ordinary circumstances, coming into a room where there are so many strange faces. But I do not find any pulse beat at all, either at the wrist or elbow. The heart beat, however, is strong enough, and exactly at the rate of 120. The hands are warm enough; I do not know why the pulse cannot be felt.

She has, then, three elements of what is sometimes called Graves' disease, because he described it before anybody else, in the English language. It is claimed for Basedow in Germany, and for Trousseau in France, but Trousseau acknowledges that Graves described it before, so that it is not very wrong to call it Graves' disease. The thyroid gland is swollen, the right side more than the left, in this case. It is a mild case, showing the three characteristic features of it in a limited degree only. Congestion produces these swellings in the thyroid gland and behind the eye. How it should fall out that three parts of the body that are at a considerable distance from each other should undergo the same change, and the intermediate parts not be affected, is a matter difficult to explain. Still, case after case presents itself, though it is a rare affection, and we are obliged to assume that Graves was right in associating the three congestions (he did not explain it, however), and that it makes really one disease.

The patient says her general health is good; she eats well, digests well, has no pain. She does her housework and thinks she is well as usual.

You ask what would I prescribe? That same fluid extract of ergot, because of its effect upon the capillaries. I would have her begin with twenty drops, increase it to thirty, forty, and perhaps, to fifty, in a week or ten days, and if it works as well as it has done in some of the cases I have seen, she will be improved in a moderate length of time. Speaking from my own experience, it always gets well; but I notice in the records of other persons it does not always. At any rate, there is hope for improvement in this case, as it is not a very well developed one. It has these three features, but none of them marked in a high degree.—Dr. Alonzo Clark in *Medical and Surgical Reporter.*

INTUSSUSCEPTION IN INFANTS.

Dr. W. R. Gillette, in the New York *Medical Journal*, states that he has succeeded in reducing three cases of intussusception in infants by the administration of chloroform, injections of warm water, and the application of massage to the mass felt through the abdominal walls. He knows of two other cases, where all the ordinary means failed, and reduction was effect-

ed by chloroform and massage. The children, in all these cases, were held, and the injections forced into them against all voluntary and involuntary efforts that they could make. In one case the gut had been invaginated forty hours, and in another for three days. In one case, the particulars of which are recorded, the water, after three or four bulbfuls were thrown in, was rejected. This was repeated constantly; it seemed almost impossible to get the gut to retain any water. Finally, an assistant resorted to massage (the infant being under chloroform). Immediately there was a roar of rushing wind and water, and a large amount of water passed in and was apparently retained. The child was laid down, warm bottles put around it, to rally it after the ordeal; the bowels were moved in a short time and a rapid recovery ensued.—*Medical and Surgical Reporter.*

IDOPATHIC OR PERNICIOUS ANEMIA, ASSOCIATED WITH JAUNDICE.

By W. T. Parker Douglas, B. A., M. B., Cantab.

The following is a typical case, so far as its clinical history is concerned; and its connexion with jaundice may probably be accounted for by an excess in the fatty degeneration of the liver (which frequently forms an element in the pathology of cases of pernicious anemia) due to the habits of the patient.

G. R. H., aged seventy, had been a strong, active, muscular man, of full habit and florid complexion, fond of sport and good living. He inherited gout, and perhaps helped to incur the same, which first made its appearance at the age of thirty; of late years he had constantly arrested its development by patent medicines containing colchicum. Two years ago he was laid up with phlebitis of the left femoral vein, and since then his health and strength had been failing, though at Christmas last he was able to walk two or three miles. He persevered with his duties as a clergyman till June 5th (the last occasion of his officiating in the church). With increasing weakness slight jaundice supervened, and persisted to the last. Of late there had been not infrequent blood loss from hemorrhoids and by epistaxis.

Such is a short history of the case prior to his coming under my observation on September 3d, in consulting with Dr. Phillips, of Hurstbourne, when his appearance was as follows: Well built, fairly nourished, no lack of fat, slightly jaundiced, and of a deepish lemon color over head, face and neck, but much paler over rest of body; skin dry and waxy, with a few small ecchymoses on extremities, and light-brown pigmentations, the seats of former petechiæ; lips and mucous membranes pale; slight anasarca over whole body; eyes with wildish, anxious expression; arcus senilis highly developed; tongue furred and dry; breath rather offensive; pulse 96, soft,

and very compressible; heart-sounds faint with systolic (hemal) bruit at base; some of the veins in both upper and lower extremities easily traceable for some distance, and hard as whipcord. No enlargement of liver, spleen, or any of the glans; breath-sounds faint, but normal; urine tinged with bile, but free from albumen; bowels generally costive, and motions of an ochery color. Sickness supervened on taking nourishment; and, besides the liquids swallowed, the vomit was mixed with darkish, grumous mucus. Temperature just below normal. Between September 3d and 6th there was constant sickness, slight epistaxis, and hematemesis to the extent of a pint and a half, followed by extreme exhaustion and death.

A specimen of the blood was taken from the finger on September 4th, secured in a capillary tube, and examined by microscope six hours afterwards, when I noticed as follows: No tendency on the part of the red corpuscles to collect into rouleaux; about two-thirds were normal in outline and size, the rest most irregular in shape, some being of equal dimensions, with healthy red corpuscles but granular, others large, indefinite in outline, elongated, or forming masses having the appearance of red corpuscular detritus, many of which were twice or three times the size of normal white corpuscles; these latter elements were not increased in numbers beyond the natural proportion, but varied in size, some being barely a third of the dimensions of the larger normal white corpuscles, thus corresponding nearly with observations made by Messrs. Mackern and Davy on the blood in a case of idiopathic anemia published in The Lancet for May, 1877.—*The Lancet.*

ANOTHER MALPRACTICE SUIT.

We learn with pleasure that the second trial of the case against Dr. David Clark, of Springfield, has ended with a verdict for the defendant. The first trial resulted in a disagreement of the jury.

The case was a suit for damages for impaired ability in the use of the plaintiff's arm, broken on July 4, 1881, with the usual allegations of malpractice and unskillful treatment. The defense maintained that, aside from an imperfect rotation, the arm is as good as ever, and that this imperfection is due to the plaintiff's own carelessness. Judge Pitman, in his charge to the jury, is said to have set forth very clearly and impartially the bearings of the case. He instructed them that the burden of proof rested with the plaintiff, and that if the evidence furnished reasonable ground to believe that the imperfect condition of the arm was due to any action of the plaintiff, they should find for defendant. Also that if they found that the defendant possessed the average skill of his profession, which was all he claimed for himself, and that in

this instance he exercised this skill, they should find for him. The *Springfield Republican* believes that this decision of the case will probably nip in the bud some similar suits against local doctors.—*Boston Medical and Surgical Journal.*

SIR THOMAS WATSON, BART.

The whole profession will learn with deep concern that the health of this revered physician has during the past few days been a source of anxiety to his family and friends. He had for some weeks past been staying with his son at Reigate. On Sunday last, although now in his ninety-first year, he was in his usual good health and attended the morning service. On attempting to rise from his chair after lunch he suddenly inclined towards the left side, and would have fallen on the floor if he had not been supported by his son. He afterwards took a short walk in the garden, but there was an evident weakness of the left leg and this continued to such a degree that he is now unable to walk without assistance. There is no appreciable loss of power in the arm, but the tongue when protruded deviates slightly to the left. There has been no drowsiness, and he is in complete possession of his mental faculties. His kind neighbor, Dr. Walters, of Reigate, is in daily attendance, and he has been visited by his old pupil and friend Dr. George Johnson, to whom he calmly remarked, "This is the beginning of the end." His medical attendants are agreed that there is probably some arterial obstruction by thrombosis in the neighborhood of the right corpus straitum. —*Lancet*, October 28, 1882.—*North Carolina Medical Journal.*

PHILADELPHIA HOSPITALS.

The superior skill of Philadelphia surgeons is attested in the following paragraph, which we extract from the *Chicago Medical Review:*

"According to a local paper, a man who had been carried to a Philadelphia hospital while suffering from the effects of a severe contusion, was asked if he had been treated kindly while there. 'Considering all things,' he answered, 'I have no right to complain.' They amputated both my feet, removed my clavicle, cut off my right arm, trephined me, took out a piece of my inferior maxillary, sawed my left os innominatum in two, and were about to exsect five or six ribs, when a fire broke out in the establishment, and the police got away with the rest of my body in safety."

This simple, straightforward, and temperate statement of facts carries conviction with it; but had it been made by any other than a Chicago man, we could scarcely have credited it. We have also learned that George Washington's hatchet and

original cherry-tree are now in the possession of the victim, and will be sold cheap, for cash, for the benefit of his widow, should he die from the original contusion.—*Medical Record.*

ALBUMINURIA IN PHTHISIS.

Dr. Cailleret, in a well-written thesis (*Paris Médical*) upon this subject, arrives at the following conclusion:

1. Albuminuria in the tuberculous is found in about one-sixteenth of the cases, according to the statistics given.
2. Albuminaria is always a serious complication of phthisis; it may be transient or permanent.
3. Transient albuminuria in phthisis, as in all consumptive diseases, is a dyscrasic albuminuria, connected with a renal congestion; when permanent, it is dependent either on a tuberculous, epithelial, or interstitial nephritis, or upon an amyloid degeneration of the kidneys.
4. Albuminuria does not seem to influence the progress of pulmonary phthisis, or hasten the evolution of tubercles.
5. The prognosis is always grave when there is a permanent albuminuria, for there can be no hope of cicatrization of the pulmonary lesions.
6. Milk diet is the one which has given the best results, and which ought to be applied, together with astringents.—*St. Louis Medical and Surgical Journal, November*, 1882.

FISSURA ANI.

Demure, in *Wien. Med. Woch.*, records the case of a child, eight days old, with a very long and deep fissure of the anus. It caused great pain, and bled freely each time the bowels were moved. The irritation from the fissure produced chorea. The sore was dried carefully and painted freely with a mixture of 1 part iodoform, 4 parts balsam of tolu, and 20 parts ether. The ether evaporates and leaves the tolu as an insoluble varnish containing iodoform. Complete recovery took place in eleven days.—*Canadian Journal.*

RECKLESS MIDWIFERY.

A horrible death has occurred at the village of Eye, near Petersborough. A woman was attended in her labor by two neighbors, one of whom professed to be a midwife, and the other a nurse. She was delivered shortly after midnight, on Saturday last, of a living child; and when Mr. Becroft, a retired surgeon living close by, was called in soon after delivery, he found the unfortunate woman dead, with her uteris, one ovary, and fallopian tube lying in the bed beside her, these parts having been actually torn or cut away by the women in attendance.—*British Medical Jaurnal.—Louisville Medical News*

A NEW SIGN OF PREGNANCY.

In the first two months of pregnancy there exists no sign which can be called diagnostic; Jorisenne (*Arch. de Tocologie*, June, 1882) seems to furnish one. Long ago Graves formulated the law that in cardiac hypertrophy the radial pulsations remain constant, whatever the position of the body. Starting with the assumption that in pregnancy there exists an hypertrophy of the heart (and this assumption, if erroneous, will not affect J.'s results), he has found that, whilst in health there is a variation of from ten to twenty beats in the radial pulsation, according as the body is upright or horizontal, in pregnancy, no matter what the position, the beats number the same. J. has been able to diagnosticate pregnancy as early as the first month when no other sign except the missing of a menstrual period was present. When examining a patient for this sign, it is necessary to proceed with deliberation, first counting the radial for the space of fifteen seconds whilst the patient is standing, then sitting, and then reclining. The order may then be reversed, and uniformly the same number of beats will be recorded. J. promises an explanation of this phenomenon in a future paper.—*American Journal of Obstetrics*, October, 1882.—*Medical News.*

EDITORIAL DEPARTMENT.

The change of editors of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL will inform its readers that the undersigned has severed his connection with this periodical.

Those who will take the trouble to refer to the salutatory of the undersigned when he began the new series of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL in July, 1873, will find the following paragraph:

"It is not in gratification of any peculiar taste for such work, or, because I imagine that I possess peculiar fitness for such work, that I am again before the public in the capacity of editor of a medical magazine. The explanation of this debut is very simple. There is an actual crying want to be met by the publication of a medical paper in this city—I at-

tempt to supply this want because I know of no other person willing to assume the position. If any one of my professional brethren is ambitious of obtaining honor, or emolument, in this field of labor, the opportunity will be afforded upon good assurance that the JOURNAL will be placed upon a permanent footing."

Believing that such an opportunity has now occurred, I most gladly vacate the editorial chair and resign all responsibilities of editorship and proprietorship to members of the profession who are able to conduct this JOURNAL with more advantage to its patrons, and I trust, better success to themselves. I most fervently thank my brethren throughout the country for the steadfastness with which they have supported me, and also for the great patience with which they have endured my shortcomings.

And these thanks are particularly due to to all those of our profession who have been engaged in medical journalism. They have shown me consideration and courtesy which will always be among the most agreeable recollections of my life.

S. M. BEMISS.

(All mail matter intended for Dr. S. M. Bemiss should be sent to P. O. box 2,615, New Orleans.)

From the foregoing our readers will see that with the coming year the JOURNAL passes under a new management. Those into whose hands it has fallen do not intend indulging in many promises, contenting themselves with saying that every endeavor will be made to conduct the JOURNAL in accordance with the highest aims of medical journalism, and to render its pages not only acceptable to the busy practising physician, but to the painstaking medical scientist. There is no reason why New Orleans should not have a good medical journal. It s the natural center for medical learning in the south andi southwest. It contains several large and well-appointed hospitals, a flourishing medical school, and many eminent medical men. Besides, it is the city toward which all eyes are turned when rumors of yellow fever reach the public, and the dicta

of its medical men will necessarily be those carrying the most weight in regard to that much dreaded disease. New Orleans is, then, the proper place for a medical journal. The managers believe this and are under the impression that the medical profession believe likewise. The managers believe, moreover, that a poorly conducted journal will not be sustained, which is equivalent to saying that a worthy one will be. Their duty is therefore plain: to spare no pains, no energy, to make this the leading medical journal of the south and southwest.

W. H. WATKINS, M. D.,
JOHN GODFREY, M. D.,
D. C. HOLLIDAY, M. D.,
F. LOEBER, M. D.,
L. F. SALOMON, M. D.

CORRESPONDENCE.

IPECACUANHA DURING LABOR.

GRAND CANE, LA., Oct. 13th, 1882.

Editor N. O. Medical Journal.—Having always given my medical brethren credit for as much therapeutical perspicuity as myself, I have ever been a little reticent in reporting cases, or remedies used, lest it should be found *common* practice with the profession, and be laughed at, for thinking I had scared up "something new under the sun." But having noticed—in your last Journal, an article by Dr. L. F. Pitkin, copied from "Medical Record," on use of "Ipecacuanha during labor;" coupled with a request that any one having like experience with said drug report the same, I therefore, give you a report of two cases, in particular, from my memoranda, although it has been a practice with me for years, to use the powder as indicated in such cases.

Case 1st. Mrs. R. aged 36 years, youngest child 6 years old, was confined in 1860, third confinement. The family physician, (Dr. Smoote, of Harpersville, Ala.), was summoned to attend; twenty hours after

ward, I was also called in great haste to attend in consultation.

On my arrival the doctor told me that the labor had progressed regularly and normally, up through the first stage and on through second stage, up to the then present condition. "And even now, I cannot see why the child is not, or cannot be born, yet she has been in the condition that you will now find her, for the last twelve hours!" I immediately went to the bedside, made examination with index finger, found position and presentation normal: But lo! I could reach the os, with a half-finger's length; yet, it was neither dilated nor dilateble, soft parts very rigid with considerable œdema, and with difficulty could pass third finger through the vulva up to os uteri.

Woman very much exhausted and worn down from continued labor, long fatigue and loss of sleep. Seeing with what I had to contend, and the great necessity of rest and recuperation of strength for our patient, to enable her to pass the approaching ordeal, I ordered ipecac grs. iv. morpia sulph. gr. ½. also, advised a decoction of ipecac 1 scruple, aqua bul ℥iv. to be prepared. I retired to rest myself for a short time, instructing the doctor to notify me on the first return of pain after quietude. She rested quietly and slept about three hours. On the setting up of uterine contraction again I made another examination, found the os considerably dilated and the soft parts yielding, but yet a little rigid; ordered 1oz. of the aforesaid decoction to be given, the contractions set up regularly, the parts all yielded kindly, and in about thirty-three minutes our patient was delivered of a male child, weight 12 pounds, and went through her month, with nothing beyond the usual trouble.

Case 2nd: Mrs. M., aged 30 years, confined Feb. 5th, 1875. (primipara.) I was called to see her 16 hours after the pain set up; arrived some time after night fall, and found a midwife in attendance; learned that the case had progressed naturally up to the present, except that the child was no further advanced than it was 8 or 10 hours previous, and the cause not known why the woman could not be delivered. The pains were going on continuously. I made the necessary examination; found the os not at all dilated; foetus driven down into the pelvis by the most powerful throes of labor I ever wit-

nessed. Seeing that my patient had considerable strength, and the presentation of child all right, and fearing danger to my patient, I gave ten grains pulv. ipecac in decoction, and ordered five more fifteen minutes after. The rigidity of the parts gave way, and in 30 minutes she was delivered of a healthy male child. Unfortunately, two days after her confinement. she was attacked with a severe case of pneumonia (lobar) of left lung, and was not out of bed during her month, but made a good recovery, and she and child did well afterwards.

I, like Dr. P., *never* thought that ipecac *increased* the muscular power of the uterus; indeed I have inclined to the opinion that it *lessened* it, to some extent; yet, by its relaxing powers and co-ordinating influences it lessens the danger and greatly facilitates the desired end. This report is much too long, and had I the time I would make it shorter and more interesting, but will add, that I have often used the ipecac either in powder or vinus tinc. to arrest vomiting.

Respectfully submitted,

N. P. REEVES, M. D.

Reviews and Book-Notices.

Slight Ailments; Their Nature and Treatment. By Lionel S. Beale, M. D., F. R. S. Second Edition; enlarged and illustrated. Philadelphia: P. Blackiston, Son & Co., pp. 283. New Orleans: Armand Hawkins. Cloth, price, $1 25.

As the practising physician is frequently called upon to treat slight ailments, and to explain to over-inquisitive patients how this or that slight pain or disposition is caused, and to lay down some rules for the preservation of health, this little work, which has reached a second edition, thereby attesting its utility, will prove of great assistance in meeting such emergencies which may appear trivial but in reality upon which much of the confidence of patients depends. The chapters on the tongue in slight ailments and in derangements are especially valuable,

as indicating the appearance of that organ in various conditions and its bearing upon the same.

We unhesitatingly recommend this work to every physician.

The Physician's Visiting List (P. Blackiston, Son & Co.), is at hand for 1883. It is convenient in size and shape and excellent in the character of its print. In addition to its other valuable and commendable features, this edition contains a posological table with the doses expressed in terms of both the apothecaries' weight and the decimal metric system.

Sold by Armand Hawkins, 196½ Canal street, New Orleans.

The Medical Record Visiting List or Physicians' Diary for 1883. New York: Wm. Wood & Co. New Orleans: Armand Hawkins, Medical Bookseller, 196½ Canal street.

With the close of each year comes the usual number of visiting lists. All are calculated to lessen the labor of the doctor in keeping his records, and each possesses qualities highly recommending them. The volume issued from the reliable house of William Wood & Co., is a model of the binder's art, and in artistic finish is not equaled. The printer has done his duty and the compiler of useful information has, with a practical hand, placed upon the first sixteen pages, matter of extreme value to the busy practitioner. Each page of the visiting list affords room for twenty-five patients per week and is properly dated. Opposite each page are arranged spaces for charges and observations. Price, $1 25.

The Principles and Practice of Surgery. By John Ashhurst, Jr., M. D., Professor Clinical Surgery in the University of Pennsylvania, etc. Third edition, enlarged and thoroughly revised, with 555 illustrations. Philadelphia: 1882, pp. 1,064, Henry C. Lea's Son & Co. New Orleans: Armand Hawkins. Price, cloth $6 00; sheep $7 00.

The reputation of the author is sufficient guarantee of the value of the work, and the third edition, containing as it does all the recent important advances in modern surgery, recommends itself not only as a text book for students but as a valuable work of reference for the practising surgeon.

Books and Pamphlets Received.

The Principles and Practice of Surgery. By John Ashhurst. Jr., M. D.

The Pharmacopœia of the United States of America. Sixth Decennial Revision.

Diseases of the Rectum, their Diagnosis and Treatment. By William Allingham, M. D.

On Slight Ailments—their Nature and Treatment. By Lionel S. Beale, M. D., F. R. S.

The Treatment of Diseases by the Hypodermatic Method. By Roberts Bartholow, M. A., M. D., LL. D.

Practical Laboratory Course to Medical Chemistry. By John C. Draper, M. B., LL. D.

Questions in Human Anatomy. By Samuel O. L. Potter, M A., M. D.

Walsh's Physicians Call Book and Tablet.

The Physicians Visiting List. By P. Blakiston, Son & Co., Philadelphia.

American Settlers' Guide. By Henry N. Copp, Washington, D. C.

Transactions of the Medical Society of the State of Tennessee for 1882.

The Malignity of Syphilis with an Analysis of 450 *Cases of the Disease.* By L. Duncan Bulkly, A. M., M. D., attending physician for skin and venereal diseases at the New York Hospital, out-patient department, etc., etc. Reprint from the Transactions of the Medical Society of the State of New York, 1882.

Meteorological Summary—October.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.054	71.8	87.0	East.	1.43	Mean Barometer, ———.
2	29.933	73.9	79.0	East.	* .—	Highest Barometer, 30.237, 26th.
3	30.004	74 5	78.0	East.	.....	Lowest Barometer, 29.781, 8th.
4	30.069	74.8	71.7	East.	....	Monthly Range of Barometer, .456.
5	30.073	74.3	77.3	East.	.....	Mean Temperature, ——.
6	30.047	74.7	81.3	S. E.	.06	Highest Temperature, 85.0, 10th.
7	29.927	75.8	80.0	East.	.....	Lowest Temperature, 59.5, 24th.
8	29.809	75.9	85.0	S. E.	.27	Monthly range, ——
9	29.881	77.3	79.0	East.	.....	Greatest daily range of Temperature,
10	29.867	79.4	70.0	North	.....	16.0, 25th.
11	29 840	78.7	68.3	N. W.	.....	Least daily range of Temperature,
12	29.901	77.8	73.7	S. E	.....	6.5, 1st.
13	29.987	75.2	79.0	North	.11	Mean of Maximum Temperature, 79.3.
14	30.033	71.9	58.0	North	.....	Mean of Minimum Temperature, 67.4.
15	29.996	71.8	68 3	N. E.	.....	Mean daily range of Temperature, 11.9.
16	29.927	75.4	74.3	East.	.....	Prevailing Direction of Wind, E.
17	29.931	77.3	78.7	East.	.....	Total movement of wind, —— miles.
18	29.939	77.4	78.7	South	.....	Highest Velocity of Wind and Direc-
19	29.924	70.5	82.7	North	.27	tion 24 S. E.
20	29.926	67.2	62.3	N. E.	.02	Number of Clear Days, 14.
21	29.986	67.5	68.0	North	.....	Number of fair days, 12.
22	30.039	66.5	81.0	N. E.	*.—	No. of cloudy days on which no rain fell, 5
23	30.092	69.5	65.7	North	.....	Total No. of days on which rain fell, 8.
24	30.157	67.8	53.0	East.	.....	COMPARATIVE TEMPERATURE.
25	30.156	68.5	62.3	South	....	1873..... 84.2 | 1878..... 83.5
26	30.175	69.2	69.7	East.	.....	1874..... 83.9 | 1879..... 81.0
27	30.097	71.2	75.7	East.	.....	1875..... 79.3 | 1880..... 81 3
28	30 033	72.2	75.3	East.	.....	1876..... 82.2 | 1881..... 82.8
29	29.995	73.8	77.3	S. E.	.....	1877..... 83.1 | 1882..... ....
30	29.947	74.7	82.7	S. E.	.....	COMPARATIVE PRECIPITATIONS.
31	29.970	75.7	82.0	East.	.....	(Inches and Hundredths.)
Sums.	.....	.....	.....	.....	.....	1873..... 8.30 | 1878..... 5.31
Means	29.995	73.3	74.3	East.	0.069	1874..... 4.82 | 1879.....10.44
						1875..... 8.61 | 1880..... 4.60
						1876..... 4.44 | 1881..... 4.21
						1877..... 2.54 | 1882..... ....

*Inappreciable.

L. DUNNE, *Sgt., Sig. Corps, U. S. A.*

Mortality in New Orleans from October 14th, 1882, to November 4th, 1882, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
October 14	0	18	23	7	3	137
October 21	0	14	18	4	2	103
October 28	0	14	13	3	1	110
November 4	0	17	13	2	6	106
....	0	53	67	16	12	456

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

JANUARY, 1883.

ORIGINAL PAPERS.

Anniversary Address Before the New Orleans Medical and Surgical Association, Dec. 2d, 1882.

BY JOHN GODFREY.

(Passed Asst. Surgeon, U. S., M. H. S.)

I.

Mr. President and Gentlemen:

You do not need prophetic ken
Just now to guess, indeed to know,
How deep within my bosom glow
Many joys, with many fears combined,
To feel that I have been assigned
The noble task to occupy
The speaker's place, and edify
As best I may these learned ones
With thoughts that breathe and word that burns.
So far as thinking is concerned,
'Tis many years since first I learned
That all the thoughts of my small store
Are simply breath—and nothing more.
But as to burning words—observe!
Mine flicker as a dying torch;
The heat they hold would barely serve
Your softest sentiments to scorch.

II.

But, more than joy, I needs must feel
What words of mine could not conceal,
That I the self-same path must tread,
Where men of eloquence have lead.
And trust me while I keep you here,
My heart contains another fear,
Which naught can disenchant;
Within my inmost soul I know,
At time like this I have one foe,
The steaming restaurant.
But do not think that I,
By what I say would try
To prove yourself addicted
To shunning ills you know,
For those that freely flow
From a tongue that's unrestricted.
Besides, one thought and sign
My straining fancy thralls,
For abler words than mine
Have echoed to these walls.

III.

Full nine completed years has run
The earth her course around the sun,
Since this society was born,
With soul and purpose to adorn
The walks where science takes her way,
Star-eyed and radiant as the day.
Science! Thou who wast gray with time,
When kings watched stars in Old Chaldee,
And sought through vigils all sublime
To find what fate's forecast should be;
Thou who art cold as Zembla's snows,
When dreams and fancies sue to thee;
Who wealth, nor fame, nor aught bestows,
Till white-robed Truth herself makes plea;
Thou, whose realm is wide as space,
We bow before with willing grace.

But, though thy paths reach goals of peace,
Thy realm strong dragons hold,
The Argonauts that find thy fleece,
Sail seas by tempests rolled.
On which account I shall not take
My way along the stormy wake
Of scientific Argonaut;
I think I know another sort
I could more easily pursue.
'Tis true 'tis wisdom's act to woo
From scientific shelves such lore
As swells each scientific store,
But 'tis not wisdom's act, I ween,
From naught but science fields to glean;
For wisdom's self hath this to say:
"There's time to work and time to play."
Wherefore you see
'Twere wise that we,
Whose mission leads through scenes sedate,
From things too solemn strive to save
Ourselves, nor seek to gravitate
Toward our patients' goal—the grave.

IV.

Unvaryingly as planets sweep
Around the sun, and ever keep
Their orbits fixed and true,
Do you come here,
And seek to clear
The darkness that obstructs your view,
Each week within the year;
Where all with Hippocratic zeal,
A host of misty facts reveal—
Prognosticate prognosis,
Expatiate on rabies,
And every other fell disease,
That needs a diagnosis.
Now, every learned devotee
Of medicine can surely see,

That if we meet times fifty-two
In our short year, 'tis plain to you,
This pathologic paradox,
'Round logic's compass we must box—
That men have weekly courses.
But stay! methinks I overshot
The proper count. When days wax hot,
You bid good-bye to weeklies;
And then from blooming May to fall,
You stretch the regular weekly call
Until we have our monthlies.

V.

Now, is it not the inference,
If I have spoken truly,
That too much seeking oft prevents
The search for science duly?
And this, my friends, is my excuse,
For steering wide of things abstruse.
But, by the way,
I beg to say,
Consistency is not my mission;
Moreover, I fear,
That I come quite near,
Being addicted to digression.
But do not deem me negligent,
The healing art to represent;
Perpetually my heart outgoes,
Toward fraternal medicos.
We all have seen the altar rise,
Whereon they fall a sacrifice.
I know the bold defiant front,
With which each medico is wont
The outset of his foe to meet.
In armament and cause complete,
How brave he goes to battle;
Lo! how his scalpel flashes bright,
And death, half vanquished, take to flight,
And bones and blades all rattle.

VI.

No pathologic state profound
Can dauntless doctor's skill confound.
No sooner does his eye discern
His foe, than all his instincts yearn
To subjugate and overturn.
Forth from green bags, instictively
Obstetric forceps leap on high,
And poising o'er parturient bed,
Prepare to grasp some fœtal head.
The long keen catling leaves its case,
And hemorrhagic hues prevail.
Or, peradventure, bougies trace
Their way through strictured male.
Meantime, observe the doctor's mien:
Upright and bold, sedate, serene,
As consul on triumphal car,
His glad ears catch the peal afar,—
The voice of his artillery,
As booms the wide-mouthed Leyden jar,
And great galvanic battery.
And when at length,
With tested strength,
His course is run—
The battle won.
See how he waves his battle flag,
And vaunts at death's disaster;
Proud emblem that, no soiled rag,
But yards of sticking plaster.

VII.

But if, perchance, constrained is he
To draw his aid from pharmacy,
Mark how the man and hour meet;
He calmly scans the long array,
And give each pharmical full sway,
Disease and death to cheat.

See Therapeusis, helpful maid,
Encourages the worthy fray,
And rattles forth a fusillade,
Of drugs that save—or slay.
What legions rise at her sweet call,
All maladies to thwart and thrall.
First, the fluid extracts,
Like wolves in packs,—
Bearing names so long they shock us,—
Encompass the way,
All things to slay,
From man to micrococcus.
First bold Rhammus Purshiana,
Next sweet Lippia Mexicana,
Then Aspidosperma Quebracho;
Urechites, Stylosanthes,
And a thousand such as these,
Led by famous Condurango.
But after these have fled and gone,
Like dews before advancing morn;
With front of Jove, far in the van,
Behold the red Peruvian.
With muscles strained, and nimble feet,
He moves the deadly foe of heat;
Nor cares, although its fires should be
Like those that belch from Cotopaxi.
And next comes she, with air divine,
His chosen child, the fair Quinine.
When calorific clarions sound,
Armed cap-a-pie, she's on the ground,
The Thermic King to fight.
How brave is she, how sweet, how fair!
Though not so tall as fairies are,
She rules the Fahrenheit.
Next physic's Samson—thing to dread—
Bold Calomel—uprears his head,
And like wild beast in crowded cage,
He kindles with hepatic rage.

Quick as wild red-man deals his blows,
He fits himself for threatening foes.
With might and zeal in overplus,
Adown the dark æsophagus
He boldly leaps, prepared to swim—
No gastric villous troubles him.
This noble drug, whom men deride
By calling him the Mild Chloride,
At once indifferent to fate
Swift rushes through Pyloric gate.
By hope inspired disease to catch,
He searches well each Peyer's patch.
Along jejunal paths he speeds,
Nor puny coecal portal heeds,
Till through the Sigmoid curve he pops,
Victorious and free,
Because he must, for don't you see,
Colons are not full stops.

VIII.

But vain the task for me to tell
How much hath wrought great Calomel.
E'en had I voice like those of old,
Who dwelt on slopes of Helicon,
Ere all this Samson's deeds I'd told,
The moon would her full circuit run.
'Tis true, at times he salivates
Opposing foes, and alterates
His course from brain to mesentery;
But what he does, like servant true,
He does until the task is through—
Go ask the cemetery.

IX.

Yet why should I with thrice-told tale,
The ears of medicos regale?
Blind is the man who cannot see
That drugs have wondrous potency.

Aye, wondrous potency, for still
The vast majority can kill.
While doctors live, and patients tug
At doctor's sleeve, and think each drug
Hath power to lengthen life;
So long will they by him be used,
And each by all get well abused,
And quackery be rife.
But do not dream that all drugs feel
Bold Calomel's fanatic zeal.
I might name some whose sole renoun
Is circumscribed by martyr-crown,
And some as harmless as the coo
Which tunes the grove when ring-doves woo.
On physic's invoice still remain
Some names, whose energies no pain
Nor ill of humankind can stir,
Not though Death's spectre should appear.
No canker sore, no foul gangrene,
Can rouse them out of mood serene.
However, where's the use to make
Distinction for distinction's sake?
Why mention names? Best let them rest
Unmarked by name. Yet, stay! 'Twere best,
One glorious name, eclipsing all,
We should with bated breath let fall.
In one short day, as comes mushroom,
It came, in fact it had its boom.
It bloomed as blooms luxuriant rye,
Unergotized, untouched by fly.
It flamed as flames the rosy hue
Where sinapisms lately drew.
It flashed before each doctor's eye
Quick as young infants learn to cry.
It rolled from every doctor's tongue,
Soft as bacterium's drinking song.
It shone as gems in caverns shine,

Brief space 'twas worth its weight in gold,
And medicos got somewhat sold
By Chian Turpentine.
But if this anti-cancer drug
Turned out a certain sort of bug,
Pray do not every drug despise.
So long as wits of men devise,
Drug stores will offer things unique;
With Calvert we can carbolize,—
Declat prefers phenique.

X

So much at present I present,
In mention of medicament;
But lest you think I break the rule,
Which places workman 'bove his tool,
I make with drugs a short lived truce,
And him who wields them introduce.
'Tis not impossible that I
This solemn task have done already;
However, this you won't deny—
Whenever doctor's bills run high,
Some folks incline to pass him by;
Whereby he learns that now and then
Reintroduction whets the ken
Of creditors, and keeps them steady.
By which I simply mean to say,
That what is said for bread and butter,
We may one time too many utter;
For doctors are like other folks
In common things, and must give way
To that which pleases or provokes,
Nor count denomination—
Unless, of course, it should appear
That doing it would interfere,
And stop a consultation.

XI.

Now then we've crossed the Rubicon,
And on the thither shore stand fast,
Like Roman Cæsar let's right on,
We've nought to fear, our die is cast.
We dare, nor fear, the world's alarms,
We trust the fight to good right arms;
No doctor lives beneath the sky,
Too ignorant to cast a die.
Here might I, since the chance is good,
In invocative strains break forth,
But if a thousand times I could,
You would not deem the tribute worth
The time it takes to do it.
Those mighty names, whom all consent
Should bear divine Apollo's wreath,
Have gone where all their victims went,
To join their old confederate—Death—
They need the pen of poet.
Then let us ring the curtain down
On those gone on before;
Whoever sleeps beneath the ground,
'Twere idle to deplore.
Enough to hope that each one shuns
Aquaintance with old Scratch;
Live doctors are the only ones
That laymen need to watch.

XII.

But ere I terminate my task,
One honest question let me ask:
Say, is there aught this wide world through,
For men of hero stamp to do,
That can the doctor's heart appal?
Behold how well he auscultates,
Exsanguinates, debilitates,
And constipates both great and small.
Mark with what skill he amputates,

How forcefully he perforates,
How rubs on rubefacient.
When fate decrees, emasculates,
And consequently aggravates,
Perhaps, some female patient.
But while such deeds proclaim him grand,
How busily he meditates,
And ponders o'er what scale of rates
The doctored folks will stand.
Ah! little recks the world outside,
How deep in doctors' hearts abide
Strong wish to quell disease;
And more than this, what rapture fills
His eager breast, should proffered bills
Turn out collected fees.
Oh, yes, the doctor does his work
With hero front, ashamed to shirk
No paying consultation;
That gives him air of grand nabob.
And makes his pulse dicrotic throb
Like one with palpitation.
Sure, nothing brings such plenitude,
And sense of sweet sufficiency,
Like knowing current work will brood
Sufficient pay in currency.

XIII.

What magic dwells in doctor's hand,
How potent is his little wand—
Argentum Nitras crystallized!
If it should chance, some limb erect,
Its crown by Hunter's sore bedecked,
To touch—behold! 'tis paralyzed.
Aye, wondrous things and manifold
Come out when doctor's deeds are told.
Metallic transmutation, which
Has proved a vain delusive hitch
To chemists all since days of old,
To him is problem light to do;

For metals which he passes through
Man's bowels turn to gold,—
That is, provided, and always,
The man with bowels promptly pays
His bill like honest man consoled.
Each ill from simplest pang to pox,
Reveals unlooked for paradox;
For every doctor learns in time,
Achievements which appear sublime,
And most vainglorious thoughts awaken,
Result from physic never taken.
So, contradictions strange presume
His life to cross and shock it;
His silver rubbed on ulcered womb,
Makes it a paying pocket,—
That is, provided, as I say,
The owner of the womb will pay.
While standing here I may relate,
In evidence to illustrate
The truth of my narration,
That Doctor Battey tries to prove,
The ovaries we may remove,
And mend bad cerebration:
If this be true, please bear in mind,
'Tis possible for maids to find
Some comfort in castration.

XIV.

The upshot is, I make no doubt,
From what I've said you have found out
That every creed holds him endeared,
Whether catholic or quaker;
And doctor's name will be revered,
While lives an—undertaker.
But while he fights his goodly fight,
And cleaves his way toward the right,
Confronted oft by that fierce glare
That gleams in eye of dark despair,
His life is no sweet sinecure.

Compelled, perhaps, each day to view
Where ghostly phthisis paints its hue;
Required by fate to ply his art
Where death and sorrow have their part—
These are no witcheries be sure.
But if the doctor's life is spent
Where sickness reigns, with mind intent
To do his work with manly zest,
And follow honor's high behest,
Sunshine will gild his future.
He'll die in peace and poverty,
And be forgot as certainly,
As cat-gut makes good suture.

XV.

But such results the medicine-man,
With philosophic eye can scan.
He knows that his true recompense
Lies in the value of his cents;
And sure as cough consumption follows,
It takes the cents to make the dollars.
But why repine because, forsooth,
The search is slow for hidden truth?
Who gathers most from wisdom's hoard,
Achieves it not by royal road.
Full many times when doubts assail,
And intervening clouds prevail,
Let him but steer right bravely on,—
His best reward is work well done;
For all the while his race is run,
No man this fact assails,—
That death gets those he cannot save,
And though he populates the grave,
The census he curtails.

XVI.

What rapture must his bosom fill,
At times how must his pulses thrill,

As with proud eye he proudly sees
The flight of overcome disease.
How soft the glance with which he views
The tear that grateful eye bedews—
Acknowledgment of grateful heart,
That doctor sometimes does his part.
But there are times and scenes and deeds,
When he sublimest courage needs.
How is it when the crimson cloud
Of war enfolds us like a shroud?
When fierce and far the bugle's bray
Portends the shock of bloody fray?
In times of such extremity,
Note what the doctor's course will be.
With nerves, like knives, composed of steel,
He waits where deep-mouthed cannon peal,—
Not on the line, but somewhere near,
Unless the thickening bullets prove,
His quarters he had better move
A trifle farther to the rear.
When the dread form of pestilence,
With step unguarded walks the way,
Moving alert with every sense
Insatiate to slay;
When day by day funereal knells,
Break from the throats of brazen bells,
And as time runs their solemn toll
Declines, as swells the long bead-roll
Of victims smit by Death's dark wing;
When silence broods, and every eye
Sees dismal hearse roll mutely by,
For Pestilence is King;
In times like these each doctor feels
His heart expand, and swiftly steals
Through every nerve, to tension strung,
The will to do the brave among.
And doth he not his duty well?
How many here could truly tell

Of doctor's deeds would put to shame
The laureled warror's brightest fame?
Not well! Why who of all this world,
When Death's black banner floats unfurled,
And his keen shafts are flying,
So resolutely fills the breach,
And if he fall, all mortals teach
How brave is doctor's dying?
'Twere vain to name the long array;
Each tomb contains a hero's clay,
Where Death keeps watch half sated.
We mourn them all; soft be their rest,
"The bravest are the tenderest,"
Brave hearts, self-immolated.

XVII.

Yea, the life of the doctor is full of good deeds.
And his heart, like the arm of the patient oft bleeds.
As his keen eye perceives man's great imperfections
And warns him to trust in the strength of collections.

Ah, how oft in the silence of night does he wait
For the burden and pangs of travail to abate?
With his mind all engaged, and with hope all imbued,
That his labors with labor will quickly conclude.

And it happens sometimes that in woman's travail,
The arm presentation of Tamar will prevail;
But fear not. Take Holt!* Let science have full sway,
And podalic to cephalic version gives way.

Then when nature's high law is with safety fulfilled.
And the accouchœur's work shows him right and well-skilled,
To the mother be health, for the babe let us pray,
That it have like we doctors a true Holliday.†

*Dr. Joe Holt, the able defender of "podalic version."
†D. C. Holliday, the genial President of the Association.

May the days of the babe all be blessed and long,
May it grow to deserve the rich guerdon of song,
May it learn to be prompt, may it grow to be sober,
And ornament life like the late Doctor Loeber.*

XVIII.

But tell me, friends,
What fate attends
Those gallant ones that failed to die
By that same pestilence, which I
Made mention of in briefest phrase,
A little while ago?
Assuredly you all do know,
However high, however low,
The world instinctively obeys
One common law, and that conveys,
Beyond dispute, the greenest bays
About the well-deserving head
Of him who sleeps among the dead.
But all the world can't die at once,
However fiercely death confronts.
So when the pestilence had fled,
A few brave ones were left behind;
They followed where the bravest led,
But failed the fatal shaft to find.
Give thanks, my friends.
That heaven sends
The doctor still to cope with pains;
If otherwise were fate's decree,
The bulk of this society
Would obviously remain remains.
Then Death would mount his swift pale horse,
With Woe astride the crupper,—
Could anything befal us worse?
We'd miss the annual supper!
But still as runs the world away,
Like dog the doctor has his day,

*Dr. F. Loeber, always behind hand except professionally.

And further search perhaps would strike
Your mind, that they are much alike.
'Tis doctor frequents most the shrine
Of sweet Hygeia, maid divine,
To cleanse the world's pollutions,
Although 'tis very plain,
That his purse would greatly gain
By broken constitutions.
Each one that hears can well attest,
How, frequently, by zeal possessed,
His fellow-men he tries to shield
From ills which noxious vapors yield;
Yea, tries despite the obloquy
Which laymen heap upon his head,
To make their lives from sickness free,
Though sickness brings his daily bread.

XIX.

But I'm sure each one awaits
To hear the separate fates
Of those that failed to die in the pestilential strife;
But I'd rather be excused,
Since my tongue is all unused
To make such public mention of a medico's life.
But since I have the floor,
Which may happen nevermore,
An occasion like the present I had better not miss;
To ask you one and all,
If to mind you can't recall
A story which in substance runs something like this:
When the pestilence is o'er,
Which was mentioned heretofore,
And the wounds having healed that were made by its inflictions,
Gives the living doctor rest,
And a superadded zest,
For the fame and the fees of prescriptions;
When returns the balmy breath
And the rosy hues of health,

And each client feels as happy as the laugh of
mountain rills;
Then the doctor twirls his thumbs,
And from comfort takes the crumbs,
And like patience on a monument sits and whistles
for his bills.

Exercise as a Physiological Necessity.

By Jno. B. Elliott, M. D.,
Prof. Mat. Med., Therapeutics and Hygiene, Medical Department University, Louisiana.

We must earn health much in the same manner as we earn money,—by work. As few possess great wealth so few possess perfect health; and this needs no qualification, if by health is understood a state of perfect physiological equilibrium. The rarity of this possession could be easily shown by the careful questioning of any hundred persons taken at random upon the street. Superficially observed they seem apparently well, yet by the expert, departures from the physiological norm could in the large majority be demonstrated. This is a truth difficult to reach, since the sufferer is most often ignorant of his condition. Only to the physician is it known how these habitual and unrecognized departures mount up against the life account when true disease has invaded the organism; only in our life-tables is it seen where they reveal that forty per cent. of a generation dies ere the age of perfect physiological maturity is attained.

The causes of these slight variations from health are the constant theme of the sanitarian. Impure air and water, badly selected food, improper habitations and irregular habits of life are the chief. Yet supposing all of these causes removed the individual so circumstanced could not remain a passive agent and be healthy. The very structure of his organism demands action for its perfect working. To live as a mass he must insure the constant molecular death of his parts. This assertion the facts of nature will substantiate.

The organic kingdom in nature has its two great sub-kingdoms, the animal and the vegetable. The study of the physiological laws controlling these kingdoms will enable us by contrast the better to understand the laws and the conditions of their action in either kingdom separately.

Plants are machines for storing up energy. The method of this storing can be made clearer by amplifying the definition, as plants are machines for transforming solar energy into chemical energy. This is strictly true for the chlorophyl of the leaf in the presence of plant pabulum, and carbon dioxide tears the carbon and the oxygen apart, setting free into the atmosphere the oxygen with its chemical energy restored, and building up the carbon into woody tissue where it remains in a molecule of wood with its energy potential.

Some notable characteristics of the plant depending upon its great function as a force-storing machine must be made permanent. First, rest is the ideal state of a machine that is to store energy. Self-engendered motion must compel the expenditure of a certain amount of the energy stored. So the plant is rooted in its place. Its function in the economy of the Universe is the strict complement of the conditions of its existence. The more widely and firmly rooted it becomes, the more rapidly and abundantly does it store energy. In this it is the organic antithesis of the animal.

Again, we know nothing of force in nature save as in association with matter. The plant stores energy, but while storing energy it likewise stores matter, yet the latter is only the necessary condition of the former. The storing of energy is the purpose of its existence. But to store energy so that it cannot but be transformed slowly and gradually, it must be stored in stable material molecules. The plant does this perfectly for cellulose, the basis of woody tissue is the product of its work. So moment by moment it adds molecule to molecule, each a material casket with its potential force-unit gar nered from the sun. Here again we find function complementary to the conditions of existence.

Lastly, by the very necessity of its mode of force-storing, the adding of molecule to molecule, the plant by each particle

it builds increases its capacity for further building. In this a second organic antithesis will be found.

Turning to the animal kingdom, the animal is recognized as a machine for liberating energy that has been stored up. The plant has stored energy in the food we eat; it has also restored the energy to the oxygen we breathe. The force simultaneously garnered by the plant in these separate forms is by the contact of these separate forms in the animal body simultaneously liberated. The method of this liberation may be more definitely stated by saying that the animal is a machine for transforming chemical energy into heat and work.

The notable characteristics of the animal are the opposite of those of the plant. While liberating energy it also, it is true, necessarily liberates matter, but the last is only the necessary condition of the first. The liberation of energy is the purpose of its existence. As a machine for liberating energy, the ideal state of the animal is action. To move and to work are its necessary modes of functioning in the cycle of nature's economy. An important point to be here remembered is that the animal is so constructed physiologically that its organic apparatus operates most perfectly under those conditions in which is best fulfilled its great function as a force-liberator, action. Here functions and the conditions of existence are again complementary.

In the structure of its molecules the animal is the dynamical opposite of the plant. The molecule of the plant is simple and stable; the molecule of the animal is complex and unstable. To store energy the plant *adds* molecule to molecule—constructive; to expend energy the animal *replaces* molecule by molecule—destructive. As the plant, by the addition of each successive unit acquires additional capacities for the future storing of energy, so by increased capacity for rapid destruction and replacement of its molecules the animal developes more perfectly its power for transforming energy into work.

The above contrasts make prominent the diverse functions of these two great sub-kingdoms; and as a physiological law is but a statement of the invariable method by which a result is reached in organic nature, we can thus at a glance grasp the

significance of the physiological law of the animal and vegetable kingdoms by obtaining a clear apprehension of the ultimate functions which the orderly execution of these laws renders perfect.

A brief digression is unavoidable at this point to notice a third great function that modern science has assigned to a subgroup of somewhat doubtful outline. At the inferior limits of the vegetable and animal kingdoms we enter a domain where classification becomes difficult. As the two kingdoms approximate through their lower forms, a life-region is reached wherein no very certain line of demarkation can be drawn. Prof. Haeckel inclines to solve this difficulty by erecting between the vegetable and animal kingdoms a third sub-kingdom, including in it all doubtful forms under the name *Protista.* Whether there be or not any foundation in form for this subdivision is not here inquired, but science has demonstrated that among the lowest groups of the vegetable kingdom there is one worthy of sub-division through the distinctness of its function. Pasteur has taught us that matter once built up and set apart in organic molecules cannot return again to the inorganic state save through the distructive life processes of the microscopic fungi; that the organic mass of the dead animal or the dead plant can again become inorganic plant food only through the interposition of these low forms of life. Here, then, is a group of organisms with a function as distinct as is that of a plant or animal. This group is literally a machine for liberating the stored up matter of dead organic bodies. The three groups possess complementary functions which may be briefly summed as follows:

Plants are machines for storing up energy.

Animals are machines for liberating energy.

Fungi are machines for liberating matter. The plant stores up energy for the use of the animal; the fungi liberate matter for the use of the plant.

Such is the cycle that nature exhibits, and the sub-divisions offer as classifying characteristics great and indispensable functions.

Returning to our immediate subject, the human body may

be regarded as divided into two great departments; one for the expenditure of energy in thought and work, the other for the preparation of the fuel that is to supply the energy. The relations of these fuel-making and force-expending departments need some elaboration.

If a man be taken in full muscular and mental activity, and the expenditure of energy by thought be arrested, he will be reduced to the physiological level of the herbivorous mammal. If, in addition the power of voluntary motion be taken away, he is reduced still further in the scale of animal life, and may be likened functionally to a mollusc. Here the condition is one of simple existence, and may be termed the existence of *physiological minimum.*

The apparatus involved in supporting life in this molluscan state is seen to include all of the organism not embraced in the apparatus for the expenditure of energy through thought and volition, (fore-brain), or for the expenditure of energy through voluntary motion, (voluntary muscular system.)

These three broad physiological divisions represent the three great functions that are to be considered.

From the possibility of existence at physiological minimum, (molluscan state,) it is evident that the "organic" or fuel-preparing system is the lowest in order of physiological importance. It can execute its functions, at their inferior level, independently of the force-liberating apparatus. It is the system, which, being lowest and independent must underlie and support the force-liberating systems. If to this "organic" system, while in action, is added the action of the voluntary muscular system, there is brought into play an apparatus that, expends energy for other purposes than mere organic existence; external work is done. The effect of this expenditure of energy in work is at once to raise the functioning of the organic system. More fuel has to be prepared; greater activity results. As, however, the muscular system is called upon irregularly for expenditure while the organic system works regularly though intermittingly, the latter system has to so to store fuel. This storing may be temporary, as in the

liver, or it may assume a more permanent form and be stored as fatty tissue. The fact that the mammalian animal under full keep always stores fuel as fat, teaches us that the organic system in good action always supplies fuel slightly in excess of the demand, or makes preparation, where conditions allow, for extraordinary expenditures by the force-liberating systems. It is to be noticed here also that the organic system, and the voluntary muscular system, act and re-act the one upon the other, each to a certain limit increasing in efficiency with the demand made upon it.

As the organic system is independent of the muscular system for its molluscan state of existence; so these two together are, for mere animal existence, independent of that portion of the brain that expends energy in the processes of thought. While, however, these two systems combined are independent of the thinking brain, the latter is entirely dependent upon their combined action for the proper execution of its functions. Their excellent action can be the only foundation upon which sound brain work can be accomplished. Sound brain work needs a constant flow of the most perfect food the organic system can supply, and this latter to produce perfect food requires the reactive influence of the demands of the muscular system. This can be made clearer by saying that in the ox, for example, the organic system supplies a proper food for the muscular system, but that in man it requires both the organic and the muscular system to prepare a proper food for the brain. When this mutual balance of the three systems is perfect, as when we use the muscular system just enough to properly feed the active brain, we arrive at the state of physiological maximum. Plato tells us that Socrates remained standing for twenty-four hours wrapped in meditation. We are less surprised at the exhibition of power for long continued mental effort when we see it combined with the muscular power to endure it in the erect posture. A signal case of physiological maximum.

Physiological maximum is a rare state. The undue balance of force-expenditure by muscle and brain is the rule in ordinary life. One extreme is witnessed in the laborer, the other extreme in the enthusiastic student. In the laborer the constant

necessity for force-liberation by the muscular system consumes all of the surplus fuel that can be supplied by the organic system over that necessary for work in the system itself and its controlling nervous arcs. The action of the fore-brain is reduced to a minimum. Thought is confined to the mere superficial interpretation of sensations. In such an extreme we may have visibly a splendid type of muscular manhood; but it is the physiological maximum of the ox, not of man. And this condition may very well consist with a copious mass of fore-brain, for such may be present through inheritance, yet powerless through lack of use. At the other extreme the student ignores his muscular system and exalts the fore-brain. All convertible energy is expended in thought. Knowledge and truth are the incentives. Intellectual existence, the dream. The usual result is physiological wreck. The body that is ignored is the only apparatus that can supply proper fuel for the brain, and just in proportion as it is ignored so must the intellectual work suffer both in quantity and quality. Baseless speculation replaces sober induction. Judgment becomes warped and untrustworthy just where its impartial and soundest action is most imperatively needed.

Between these extremes we see every possible variation. As we rise from the level of the day laborer to higher planes of occupation less demand is made upon the muscular system and more upon the brain. It is in the region of this more rational upward balance that is found the many who conduct the business of the world. As we descend from the extreme of the student less is demanded of the brain and more of the muscular system. It is in the region of this more rational downward balance that is found the few who generate the thought that is to be of lasting service to mankind.

Two abnormal classes yet remain to be mentioned. The one comprises those whose duties compel constant brain-work, while at the same time constant muscle-work is imperative. In this class we have those who are overworked and who die at comparatively early ages; for while it is a law that a given amount of fuel furnished by the organic system can only furnish a given sum of energy to be expended by brain and mus-

cle, and that on this sum the muscular system makes the readiest claim, yet the will has the power, when necessity compels, to force brain work even though the fuel tissues of the body themselves have to be sacrificed as fuel. In this class we find anxious and preoccupied facial expression and a lean body. The converse of this furnishes the second class, or those who through fortunate circumstances, are not compelled by thought or work to draw upon the small surplus of fuel that the body stores up in adipose tissue. In these is found a body-bulk that is abnormal for the increase is not in force-liberating apparatus, (muscular), but in an accumulation of fuel that was intended for use.

While the above classifications express a general physiological truth, yet there are exceptions under each class. There are some to whom nature has been bountiful; some to whom have been given an organic apparatus that enables them to expend energy to its full in both force-liberating channels, and yet who have remaining enough fuel to put in store. Others again to whom in this regard she has been niggardly and who cannot store even where they do not liberally expend. These are notable exceptions; the happy few of the first class being generally leaders of men, the unhappy few of the second class being generally followers of doctors.

Fortunately for mankind perfect animal health is entirely consistent with the expenditure of energy through its lowest channel, the muscular. So in the laboring population is witnessed a great physiological compensation, for up to a certain limit the very labor they are compelled to perform is returned to them in robust health. Above this plane, however, must be sought the balance of exercise that is to give a true physiological maximum.

From what has been advanced it is evident that the term exercise is used here with a wider significance than is usually given to it. Exercise as necessary to the attainment of a physiological maximum for man must mean the proper play of each of our great force-liberating apparatuses; must embrace the judicious use of brain as well as of body. Since it is insisted upon that the muscular apparatus is essentially a part

of the proper food making system for the service of the brain, it remains on the one hand to inquire into the amount of muscle-work needed to render this food efficient for brain work, and on the other, into the amount of brain work necessary to attain and maintain a physiological maximum.

It is first to be observed that muscular work is entirely under the control of the will. The muscles can be called into action at pleasure and kept continuously at work until arrested by exhaustion. It is in our power therefore to determine that we will exercise for one or two or more hours and to do so without failure for the specified time. On the other hand our brain work is not under voluntary control. We may determine to sit down and think out a given subject and yet be utterly unable to think at all; or more often we will take up the intended chain of thought and ere much progress has been made will find that our thoughts have wandered wide of the mark and that the process must be recommenced. This teaches us at once that while muscle expenditure can be accurately measured by time, thought expenditure cannot. Brain work, again, arranges itself into two marked classes: The acquisition of knowledge as in the studying of the school boy; and the using of knowledge so gained for original thought. The first is necessarily the work of the young brain and can in a measure be compelled by the individual. The second is the work of the maturer brain, and is compulsory only in so far as early training has fitted the brain for easy application in such direction. This last statement must be still further qealified by saying that even early training will fail to give power of control if the muscular and organic systems fail to furnish good food. Many difficulties therefore surround the question of the quantity of either necessary to maintain physiological maximum. It is a question that must be left in a great measure to the individual. The loss of appetite, color and weight are evidenees in a student of an excess of brain work over muscle work. The loss of an habitual power of thought concentration shows long continued dissipation in brain expenditure. The acquiring power being more under control can be better given a time measure. A lad of sixteen will

probably not injure himself with study where three hours of honest exercise are taken in the day. With boys of twelve or under, where growth makes a large demand upon the resources of the body the time should be equally divided for free expenditure by brain and body.

Concerning the amount of brain work necessary to maintain a physiological maximum it is still more difficult to speak. The brain is so dependent upon early training for its capacity for work that it is impossible to lay down any definite measure. To one mind thought is easy; to another it is labor to compel it. To enter upon the subject would require an additional essay upon mental training and the after conduct of brain expenditure, a subject not contemplated here, especially as loss of physiological balance in this direction does not involve the question of mere physical health.

The time, place, and nature of exercise deserve a word. Exercise should not be taken too soon after a meal. The organic system should have control of all of its energies for digestion. Exercise in the open air should be preferred to exercise in a house, and variety in exercise should be studied. Any set of muscles used daily, to the exclusion of others, causes an unequal development; and furthermore, the set repeatedly used will become developed to the extent necessary for the habitual work and, therefore, tissue building for that set reaching its limit, less combustion will take place in a given time. Such variety should be attempted as will call upon the greatest number of muscles for action in a given time.

Sunlight should be courted. As the highest organism still bears with it in its fullest development functions characteristic of each of the planes of existence beneath it in the scale, so man, with his complex apparatuses for liberating energy, still possesses in the skin, we must think, an apparatus that to a certain extent transforms solar energy into chemical energy. What is the exact influence of solar energy in human physiology has not been determined, but that it is necessary to proper physiological functioning has been placed beyond all doubt.

The burden of this paper has been addressed to those who are presumed to be in danger of losing their physiological equilib-

rium by too much mental work. Although the consideration of the danger of loss of balance in the other direction has to be omitted, yet, to those who claim that they but waste time in crude and ineffectual thought, it is well to suggest that thought is never a waste product; that even though it yields no visible external result, yet it moulds and elevates the character of the thinker; that though it is not necessary to bodily health, it is a factor indispensable to a robust moral health.

Varicocele.

By W. H. Watkins, M. D.

Read before the New Orleans Medical and Surgical Association, Dec. 16, 1882.

Mr. President and Gentlemen:

Varicocele is a dilated and tortuous state of the veins of the spermatic cord. It is most frequently met with between the ages of 15 and 35 years, though, rarely, it has been found to occur before and after these dates. We thus observe that it is an affection which presents itself at that period of life when there is most physical vigor, and is thus in striking contrast with varicose veins in other parts of the body, these enlargements persisting and increasing with age. The degree of enlargement is not constant, and is so modified by natural causes as to present under various conditions different degrees in regard to size.

The tumor constituting varicocele is irregular owing to the knotted and convoluted condition of the spermatic veins. Its base rests on the testicle, and its apex extends to the inguinal canal. To the touch its irregularity is very apparent, and the sensation derived from this has been likened to a mass of earth-worms in a wet bladder. The size varies from a slight fullness to a mass several inches in circumference. The veins of the scrotum are not infrequently involved. The size of the tumor and its turgidity greatly depend upon the position assumed by the patient. When erect, or straining the muscular system, the volume of the mass is increased; when the recumbent position is assumed the tumor apparently disap-

pears, or is greatly reduced in size. An impetus is given to it by coughing and some distention of the veins occurs with prolonged cessation of inspiration, but its general form, the base presenting at the testicle and the apex narrowing toward the inguinal ring, constitutes sufficient feature to differentiate its diagnosis from other tumors of the scrotum. As I have said, the degree of enlargement varies. When the affected individual assumes the upright position and has remained on his feet sufficiently long to become fatigued, the veins become more turgid, but when the patient has rested or is lying down, the fulness disappears.

The left spermatic veins are by far most frequently involved. Landoucy, in Agnew's Surgery, vol. 2, page 563, says that of 5639 army recruits, rejected on account of varicocele, 4881 were affected on the left side, 344 on the right and 414 on both sides. Dr. Agnew states, that in many examinations made during the late civil war, he did not meet with a single case of varicocele on the right side. It is also stated in the same work, that of 30,000 army recruits examined by Sir Astley Cooper he failed to find one on the right side.

The theory most frequently advanced, and probably very justly held, is that the greater frequency of varicocele of the left side is that the vein empties at a right angle into the renal vein; the opening is unprotected by a valve, and the consequent weight of the column of blood and resistance to its return causes this enlargement, while on the right side the spermatic vein empties into the vena cava at an acute angle; this opening being protected by a valve, the vein is relieved of weight. Another anatomical peculiarity is that in most instances the left testicle hangs lower than the right, and is also larger; this bagging of the scrotum favors a larger deposit of blood and favors dilation of the vessel. Koenig also instances another reason for the prevalence of varicocele on the left side by calling attention to the fact that the usual method of dressing supports the right testicle, as the scrotum is generally carried on the left side of the pantaloons. He also asserts that he has never observed varicocele on the right side to exist except when the right testicle was lower than the left, and was

correspondingly carried on the right leg of the pantaloons.

So much for the anatomical pecularities favoring this disease. We will now call attention to the accidental or those changes due to the conditions more or less under the control of the individual. We will take them up seriatim.

1st. Fatigue. The upright position, favoring the filling of the spermatic veins, when steadily assumed as in various occupations, especially those of clerks and accountants, tends to relax the dartos by the continued pressure of the testicles, and at last the pendulous scrotum gives evidence that this important tunic has lost its resiliency and physiological function. This relaxation, diminishing the natural support of the veins, is followed by their enlargement and elongation.

2nd. Heat. The disease is said to be more common in warm countries, and the relaxation incident to warm climates favors the production in cases where exercise and consequent fatigue are not excessive.

3d. Excessive venery. By many pathologists this is thought to be the prime factor. The afflux of blood to the testicles and genitalia consequent to worship at the shrine of Venus, and the frequent repetition of this service congesting, and the relaxation following, favors the dilation and passive congestion of the veins.

4th. Obstruction. Pressure on the veins by preventing the return of blood will, in the spermatic veins as elsewhere, cause ingorgement and a varicose condition. The presence of a hernia, the application of a faulty truss, tumors of various kinds and the pressure exerted by the accumulation of foecal matter in the sigmoid flexure of the colon, will induce, or aggravate an existing varicocele.

5th. Inflammation. When the testicle or epididymis become inflamed, and when the imflammation is frequently repeated there is unmistakably predisposition to varicocele.

Diagnosis: The problem to be solved in diagnosing varicocele is an easy one and presents few difficulties. The peculiar worm-like feel of the convoluted veins, the broad base and narrow apex, the turgidity when the patient stands up, its ab-

scence when he lies down, serve to distinguish it from other scrotal tumors.

Treatment: The fact that so many remedies have been suggested to relieve or cure this common affection, indicates that none of them are wholly satisfactory, and the occasional deaths resulting from operative procedures should remind us that all measures for palliation should be faithfully instituted before hazarding a more dangerous mode of cure. We must remember, that with middle age, the disease improves, and with old age, completely disappears. Koenig, the professor of surgery, in Goettingen, once assistant of Langenbeck, in his work on surgery says that the operative treatment of varicocele is seldom indicated. He has never seen the operation performed by any surgeon, nor has he seen an indication to make it. Dr. Kocher says that the number of operations recommended indicates the difficulty of satisfactorily curing the affection, and that the remedies recommended are more dangerous than the disease. Sir Astley Cooper attempted a radical cure by excission of part of the scrotum, as has recently been recommended by Henry, of New York; but this method, according to Curling, in cases operated upon by Cooper, has been followed by relapse. Hemorrhage into the cellular tissue is an evil also to be feared, but the improved clamp suggested by Henry may present this. Among the numerous operations recommended, we will note a few; indeed this number seems only limited by the memory of the surgeon who records them. Excision of the veins, after double ligature, with antiseptic precautions, is recommended by Patruban; Kocher advises the same method, only that he uses cat-gut ligature. Brichett advised that the whole venous plexus be placed between two clamps, taking up the veins and a portion of the scrotum between two ligatures. The subcutaneous tying between two silk ligatures, was recommended by Ricord. His operation is very ingenious. Agnew thus describes it: "Ricord's method consists in passing two double ligatures in opposite directions, but through the same holes, one between the veins and the vas defirens, and the other between the veins and the skin; the free ends of each double

thread are next passed through the loops of its fellow ligature, when, by making a sufficient amount of traction, the strangulation is affected." The same operation was recommended by Vidal, only that silver wire was substituted for the silk ligature. Rolling up and shortening the venous plexus by passing a straight needle behind and a silver wire in front of the veins, then rotating the two is recommended by Erichsen. Prof. Gross recommends the introduction of a needle armed by a silk ligature into the scrotum, the careful isolation of the venous plexus, the passage around this of the ligature and bringing it out at the same opening as when introduced; this ligature is gradually tightened over some elastic substance until it cuts its way through.

But, gentlemen, when you take into consideration the diffuse cellular inflammation which sometimes terminates in death, the recurrence of neuralgic pain in the loins, spermatic cord and testicle, which alone frequently causes the patient to seek relief, this even when the varicocele is cured, and on the other hand that the disease is not dangerous to life and rarely functionally troubles the organ involved, should we not hesitate, and, only in rare or exaggerated cases operate at all? Not without cause is this advice given, for we read in the text-books on surgery, dealing with the question of varicocele operations, of the death of surgeon Delpeach, who was killed by a patient on whom he had operated for a double varicocele which resulted in atropy of both testicles.

Palliative procedures seem to me most advisable, indeed except in very rare cases all that are demanded. First secure regular evacuations from the bowels; the regulation of the sexual function or entire abstinence. The systematic use of the cold douche to the scrotum to promote contraction of the walls of the vessels and the dartos. Careful and systematic support of the relaxed scrotum is indicated and this can be accomplished by the suspensory bandage; the application of a solution of gutta percha in chloroform or, as recommended by Dr. Edward R. Mayer and endorsed by numerous members of the profession, a lotion of tincture of hamamelis verginica diluted with water. The various operations I have witnessed

or performed lead me to the belief that surgical interference is rarely demanded. Careful hygienic attention will produce comfort and possibly contra-indicate any operation. But when these fail, it seems to me that the combined operation of removal of redundant scrotum and ligation of the spermatic veins, through this wound, with cat-gut, under strict antiseptic precautions, will probably approach more nearly to the radical cure of varicocele.

[We gladly give room this month to the address of Dr. HOLT, because it touches a question which some months since exercised the medical fraternity in an unusual degree. There are two sides to every question, and Dr. HOLT certainly presents his with manliness and ability. We regard medical ethics as germain to the general question of medical science, and this Journal will always be open to both sides of any question relating thereto. EDS.]

The Ethical Problem.

An Address before the New Orleans Medical and Surgical Association on the Evening of their Ninth Anniversary, Saturday, December 2d, 1882.

BY THE RETIRING PRESIDENT, JOSEPH HOLT, M. D.

Gentlemen:

The New Orleans Medical and Surgical Association is, among medical organizations, a peculiar institution. Possessing an identity solely its own, it exhibits traits of constitution and features so unique as to stamp it with a personality original, distinctive, unmistakable; as one in a multitude, without likeness.

Endowed with the functions of organized being, capable of action, varied and sustained, it is gifted with the power of life perpetual.

In the plan of its construction, so simple; in the harmonious movement of its self-adjusting mechanism, so true; fulfilling every purpose of design so accurately and with so little noise and friction, it presents a model of that perfection arrived at by inventors who seek to attain with the least complexity the maximum of efficiency.

In attempting to elucidate what I believe to be the philosophy of our history, some may consider me a very bad teacher. But

all, I trust, will do me the justice to allow that I am an honest one, endeavoring to instruct in accordance with the facts.

It is eminently proper that our newly made associates should understand the combination of circumstances that called into existence this particular organization.

Its creation was not an accident; it was a necessity. I will therefore address my remarks pointedly to the younger members of our body, to those whose professional existence does not extend back to the period antedating the establishment of this organization, and who, it is reasonable to suppose, are not acquainted personally with the current of events and the condition of the medical profession in New Orleans at the time of and for many years preceding its inauguration.

It is reasonable to believe that you are not acquainted with the history of the medical associations, its predecessors; *their transactions*, the duration of their lives, the immediate causes of dissolution, and the results of their existence—for the deeds of men live after them.

In explanation, or, by way of apology, if you please, let me say that what I am about to utter is not intended to apply to any other association now in existence, but is only a critical investigation of the past, with an honest but determined intention to reveal the truth, and the whole truth, to the end that we may profit thereby. For the general good, it is my desire to criticise methods, not individuals; measures, not men; for the men of those days were neither better nor worse than we of the present time. Actions imply actors, but to construe any remark as a personal allusion, however remote, would be foreign to its intentions, and wholly unjust toward myself.

Gentlemen, this is the ninth anniversary of the New Orleans Medical and Surgical Association.

Twelve years ago the only medical organization existing in New Orleans, after a few months of feverish and fretful life, died violently and was buried in merited obscurity, beside its predecessors; nearly all of them at a tender age, none of them honored or regretted in their death. Anarchy reigned in our profession, and our wisest men had well nigh abandoned hope.

Not only had the repeated attempts to establish a perma-

nent association failed, and this time disgracefully; but like noxious weeds dying, these left behind them baneful seeds, scattered broad-cast upon the fertile soil of our worser selves. They sprouted and grew, and brought forth fruits—hatreds, criminations and recriminations, back-biting, quarreling, strife and all manner of uncharitableness. Even casual conversation was burthened with the recital of some injurious story or severe criticism of another.

With a few exceptions of personal predilection, physicians avoided each other with suspicion and contempt.

The spirit of Esau possessed us!

This sounds like a gross exaggeration. I am ashamed to know that it is not.

As for an able paper elaborated in one of these societies, a searching discussion of a medical subject, or of one in the collateral sciences, there is very little, if anything, recorded. Attempts at these were meagre and desultory. Such things were irrelevant to the main point and mostly a bore. Borrowing the criticism on a certain rash but uninformed doctor, they "asked no odds of science."

This, gentlemen, was the general state and tone of our profession, when a few of the younger men, not yet hopelessly saturated with prejudice, agreed to meet informally to discuss the possibility of bringing order out of chaos, of beating the sword into a plough share, the spear into a pruning hook.

It was a gloomy undertaking.

The fact of their having met was soon noised about, and ridicule greeted them on every side. They were allowed just six months to collapse in another failure.

The first question that presented itself was the momentous one upon which every thing else depended, the framing of a constitution.

A sense of unseen danger compelled the inquiry—What is the stone of stumbling and rock of offence upon which these associations have wrecked themselves? Too much legislation. What was the cause of death? They were drowned in too much law. Why does it delight medical men to legislate and create much law? Because they, like their ecclesiastical

brethren, are conservative, and behind the democratic spirit of the age. They love to exercise authority one over another, and hallow the precepts and examples of their predecessors back to the darker ages, and so venerate and adhere to the methods of discipline through "*the medicinal pain.*"

The modern idea of letting alone the private and personal opinions and actions of men in the conducting of their professional affairs, had never entered their minds; or, if it had, it was a heresy too monstrous to be allowed for a moment.

Their only notion of an association was based on a huge constitution; a lot of statutory laws called by them, a code of ethics which, among other things, provided for the establishment of an amusing little tribunal, a sublime mimicry of magisterial dignity, called a court medical, or some such terrifying title, that proved as effective as a Chinese gong in a battle; a sort of criminal court or inquisitorial judiciary, composed of a set of doctors, some of whom were refreshingly immaculate and peculiarly qualified as censors. These were to say whether a man should be humbled and declared in public disgrace, or acquitted, or pardoned. They could degrade, but could not exalt—jealousy forbade! However, the code was all right; the tribunal was all right; the only one all wrong was the egregious simpleton who deliberately gave any set of men such extraordinary authority over himself: selling his birth-right for less than a mess of pottage. But they did do it! And history has recorded that the very men who were foremost in enacting the laws, were the first to violate and defy them.

In subscribing to the code, all thought they were acting wisely and for the best, but the application of a test quickly proved the whole scheme superficially inviting, but specious and mischievously impractical, an experiment suggested by a a chimerical ideal.

It was the uniform experience of these organizations that the upright and pure in heart, men who were guileless and needed no regulation, were perfectly willing to come under the law and to abide by it; they having the law already written in their hearts; while tricksters and professional

scamps, who needed much restraint, would not suffer themselves to be controlled by a code, or in any manner be brought under its power. As a consequence, the pretension to govern, and the manifest inability to enforce, reacted in contempt; a contempt of feebleness; of attempt and failure; and, worse than all, a slighting of the notion of government at all, and of the very principles of the code.

The intention of government is salutary; if, however, in its application it engenders controversy, and injures the just but does not reach the wicked, *cui bono?*

Again, it was asked: Are not these rules and regulations of the code, for the most part, matters of elementary training within the province of the nurseries, the schools, rather than the care of the established profession? Would it not be a grievous imposition if refined society had to assume the task of teaching good behavior, and of instructing its adult members in all that constitutes gentle breeding?

So far from accepting such a "*Vicarious Office,*" society simply reads in the manners of the man his mother; and rates his claim accordingly. So should we, in the professional decency of the physician detect his "*Alma Mater.*" Let the schools look to their children! They are the parents of physicians, and upon them rests very much of the responsibility of the training, or rather, the lack of training and ill-manners that we try to patch with a code. "As the twig is bent," etc.

Another sad experience of the tribunal system was this: Under its pernicious influence, phyicians, gentlemen by birth and education; versed in all the amenities of cultured life; in dignity of station the peers of the best men in the community about them; even these were insidiously degraded, and brought under a system of espionage; presenting the pitiable spectacle of gentlemen committed to playing spy upon their fellows. This the most hateful instrument of tyrannies, was inevitably forced upon a man by the very nature of the compact that bound him to others. He must inform or himself be a recreant. The two horns of the dilemma were presented squarely before him; he must accept one or the other!

Another practical effect of the code was this:—While for-

tuitous circumstance and position made it perfectly right and proper for one to do a thing looking to his own advantage, in another, not so fortunately situated, the same action became most heinous, and outrageous disobedience.

Let me cite an instance: The publication, not only in the medical journals, but in the secular press, in pamphlets and circulars to be scattered broadcast among the laity, of a list of physicians as occupants of professional chairs, constituting the corps of a faculty, is practically an advertisement of each member as a specialist in his particular department; and is the very best of all advertisements.

This advantage, and a signal one it is, while perfectly correct and unobjectionable in itself, when availed of under the restrictive clauses of a constitution or code of ethics, becomes immediately an oppressive and invidious exception, violative of every principle of even-handed justice, and is iniquitous.

This we had to accept as *medical justice*, enforced by *medical legislation.*

Those young men who held the meeting in which was conceived the New Orleans Medical and Surgical Association, were revolutionary!

Holding in abhorrence the legislative exactments and the example of their masters, who, in their collective capacity, had proven their own insufficiency, had forfeited confidence and every claim upon affection and respect, they renounced all allegiance and became to themselves a law.

This night is the anniversary of the reactionary movement, enfranchising the medical profession in New Orleans, just as the fourth of July is that of American Independence. Each is an experiment in government.

Nine years ago this association was born; and its spirit heralded the glad tidings, "Peace! Good will to men!"

Here is the constitution that was framed, and, very slightly amended, has stood the test of all these years, the excellence of its simplicity approved by an enlarged experience.

It claims no authority outside the meeting-room; and even here exacts nothing more than regularity of attendance, the

payment of dues, and the opening of discussion when appointed.

The only provisions of a personal kind are qualifications for membership; that an individual proposed must be a regular graduate of medicine, of good moral standing; and that proven violation of the criminal law of the land is *ipso facto* an expulsion.

The quarrels of doctors are in no wise entertained; nor does it provide a gladiatorial arena for the exhibition of champions.

What does this constitution teach us? It teaches that when physicians associate themselves "for mutual improvement instruction and interchange of opinions and observations, the discussion of medical subjects and the cultivation of kindly feelings among members of the medical profession," nothing remains to be desired by such fellowship.

By its reticence it teaches that men are happiest when they carefully regulate and control, each one, his own personal self, and permits his neighbor to do the same. And that captious fault-finding, habitual cynicism, espionage, an over-weening desire to manage somebody else, the persecution of an individual or sect, and the establishment of one's self as the only invariable and correct standard chosen by the Almighty to measure and to regulate mankind, are not the sentiments conducive to the higher interests of our profession, or to the success and influence of its members.

The framers of this constitution, relying upon the unwritten law of propriety regulating customs and manners, and controlling society; the law which determines conduct, and tells you how you shall deport yourself; who shall sit at your table and who shall not; who is agreeable to you and who repulsive; resting their faith upon the universal law of association that all fear and obey, these displayed a more consummate knowledge and philosophical comprehension of men and the management of men, than all their predecessors in all time before.

The question was pertinently asked: "How much law does it take to govern a doctor?" We are subject to the laws of God as expressed in the Decalogue, are citizens under the laws

of the United States, under the laws of the State of Louisiana, under the municipal government of the city of New Orleans, under the gynarchial government of our wives, under the tyrannical government of the babies, and in the name of all that is reasonable and humane, do you wish to pile on more law, and put me in the judicial keeping of a lot of doctors, who are to regulate me in my consultations, dictating whom I may meet and whom not, in my prescriptions, in my charges and collections, in my conduct and personal bearing towards other practitioners, telling me whether I may advertise or not, may use a big door-plate or must use a little one, and what I may put on that door-plate and what I must not put on it, and any and all such intolerable, boyish nonsense and busy-body meddling?

From the very beginning this association referred these questions to the tribunal of personal judgment and the conscience, relegating to the waste-basket all questions to the contrary.

To legislate fidelity to principle, they knew to be a philosophical "*Fifteen* Puzzle," not yet accomplished, even by a medical society—an absurdity.

The whole ethical problem they condensed into the compass of a question and an answer. "There are abuses and divers forms of wrong-doing, injurious both to the profession and laity; how are these to be remedied?" "Such abuses as affect the people are properly within the purview of the law, and are to be regulated by the State. Those petty practices, mischievous and disgraceful to the profession itself, we can only hope to deal with educationally, through the more rational and gentler methods of precept and example, and by improving the social relations existing between physicians themselves."

"Reformation by compulsory and penal statutes stands before us as an experiment and a demonstrated failure. We will none of it!" This was their reply.

They declared, with the terseness of an axiom—"We cannot legislate a clown into a gentleman; a mean fellow into a grand character; a trickster into an honest man. We can only hope for his redemption, and protect ourselves by deny-

ing him fellowship. Our predecessors have attempted to legislate professional morality, we will endeavor to teach it."

Upon such logic they established their foundation, and built contrary to all the rules of precedent. What has been the result? The country at large has survived the experiment; the community not only lives, but seems to be flourishing famously; and unless it accounts for so many deaths among the doctors themselves, I fail to see any consequence of a disastrous kind.

But what has been the effect upon the association and upon the profession in New Orleans? You may call it coincident, if you please, but it is nevertheless a fact that, with the birth of the New Orleans Medical and Surgical Association, there also came into existence here a kindlier feeling between physicians, and the change was first manifested among the younger members of the profession, who were also of this association.

It is a glorious fact that this better sentiment has steadily gained in strength, and has diffused itself, until it is now the pervading principle governing the profession in New Orleans. Physicians are no longer æsthetic porcupines, hedged about with points of etiquette, bristling in fretful expectancy, but are controlled in their mutual relations as in their conduct toward all the world by their instincts as amiable gentlemen, and by the dictates of common sense.

Whatever the exceptions, generally, this is strictly the rule, so far as appertains to our members. These are not distrustful, and are inclined to do a kind turn; desiring to help, rather than to rule or ruin.

We are justly accused of partiality. But association has made us better acquainted in regard to professional merit and moral worth. Hence, these preferences.

This is no coincidence, gentlemen. A great work has been accomplished; a great change wrought; silently, slowly, almost imperceptibly. So great a change, indeed, that the medical profession in New Orleans, of to-day, is no more like that of ten years ago, than peace and quiet, and contentment of mind, are like the wrangling of passions in perdition.

There has been but one agent at work that could possibly have accomplished the result: this association!

We have been called by satirical carpers, a mutual admiration society. What a contrast! What a glorious change when the physicians of New Orleans can be accused of such a sentiment as mutual admiration!

Here is an organization that has accomplished great good, and is destined to accomplish greatly more. It is worthy all the zeal, all the zealous care and affection in our power to bestow. Its field of usefulness expands with its age.

As for State medicine, the regulation of the practice of midwifery, pharmacy and medicine, the cultivation of sanitary science, the exercise, indeed, of every function for the public weal, this association enjoys exceptional privileges in being untrammelled by hinderances within itself, not having its attention preoccupied by the regulation of its own members; in having no judicial machinery, no codes or courts to arouse suspicion, or to elicit the accusation of our desiring to become a medical hierarchy, a priesthood of the ceremonial law. Being simple in its ways, it commends itself to public confidence, and has already been accorded a high position in the popular esteem.

With such illustrious examples as are before us here of men old in the harness of professional work; enjoying the highest positions in public estimation; commanding the richest and most extensive fields of practice; yet these the most constant and earnest members of our body, faithful in the discharge of every duty, the rising profession is moved to emulation; finding virtue in our motto "Laboremus!"

What an incentive to perservering industry! But what a withering rebuke to the laggard; and to the contented outsider, who prefers his obscurity with dawdling idleness, to the assumption of duties that enforce work!

Here ends the epitomized history of our association. Looking back through a long period of years, we discover that this is no self-constructed creature, nor an ingeniously contrived invention; but that our profession has been moving in obedience to a law of evolution directing its phases of existence, as

inevitably as in the case of any organized association of beings constituting an order of fauna.

The necessity of existence is evidenced by its fact; so is that of association by the instinctive impulse leading to it. The imperfect construction of earlier organizations was no fault to be charged against them, but represented simply a particular stage in the general plan of development; and was the essential precursor of the one following; which, in its turn, could claim no superior virtue other than that of successor with its appropriate improvement.

We may truly say, and with pardonable pride: We have wrought well. But pride must be subdued in the reflection that the errors and calamity of those to whom, as individuals, we were bound by ties of friendship and grateful remembrance, have pointed us the narrow way of safety. Their failures have made possible our success.

Letting the dead past bury its dead, we pause for a moment to spread over its graves a mantle of charity; and then, press forward to a more exalted destiny.

In retiring from this position of honor, I again thank you for the distinction you have conferred upon me. I am especially grateful for the consideration and forbearance I have enjoyed while endeavoring to fulfil my official duties.

TRANSLATIONS.

EMPLOYMENT OF NAPHTOL IN DISEASES OF THE SKIN.

(Translated by L. F. Salomon, M. D., for N. O. Med. and Surg. Journal.)

Naphtol is a body derived from tar, which exists in commerce in the form of large violet crystals of a reddish brown shade. It dissolves in an equal weight of alcohol and in a mixture of equal parts of alcohol and water, but not in water alone. Besides the solution in hydrated alcohol, it may be used in a solution in oil or in lard, making an ointment. The first of these mixtures imparts, in the beginning, an agreeable suppleness to the skin to which it is applied, then after several dressings the skin becomes red and the epidermis desquamates. The ointment has

the same effect after several days; it does not cause itching or burning of the diseased skin.

Naphtol has recently been experimented with by Kaposi, of Vienna, in diverse affections of the skin. The results obtained do not appear to have been so favorable with us. The following, taken from the *Rèvue des Sciences Mèdicales* are the cases in which Kaposi has employed this treatment.

In 52 cases of scabies he used the following ointment:

Axungiae	100	grammes.
Saponis Viridis	50	"
Cretae Prep	10	"
Naphtol	15	"

M. S.—Rub the affected parts twice in 24 hours.

This ointment first destroys the *sarcopte* and then dries up the pustules and eczematous spots. As it has no odor and does not soil the linen, the patient can attend to his business, and is often cured after one day's treatment.

Psoriasis is successfully treated with the same remedy. In three women affected with psoriasis of twenty years' standing, and particularly tenacious, after the application of an ointment of the strength of 15 per cent., at first the scales became detached, the spots took on a red color, and at last, at the end of eight or ten days, became white, resembling leucoderma. This ointment has not the disadvantage like chrysorubin or pyrogallic acid of staining the skin or producing pustular eruptions.

The study of seventeen cases permits the author to recommend naphtol especially in psoriasis of exposed parts, such as the face, head and hands.

In twenty-one cases of eczema naphtol was used as a succedaneum to tar at the subacute period of inflammation, which exists sometimes during the increment and at times during the retrocession of the disease, and of which the therapeutical indications require great delicacy in establishing. The author commences by using a five per cent. solution in alcohol and water, then a two per cent. and lastly one-half or even one-quarter per cent. solution, because naphtol is not stable and may have, without proper precautions, an injurious effect.

In papular or squamous eczema, if the time is well chosen the weak solution will stop the itching and render the skin soft and supple. Then, when a brown disclosure appears upon the broken, desquamating skin the dressings should be suspended and a starch poultice applied. The use of the strong solution might augment the inflammatory condition. Four cases of chronic eczema were very happily modified by the applications, in a very short time. The ointment is less efficacious than the solution, except in the artificial eczemas of scabies, and for example, prurigo. The author concludes, that, injurious or useful, the action of naphtol in eczema is not

only comparable to that of tar, but infinitely more rapid. *Journal de Medecine et de Chirurgie.*

[NOTE.—By *naphtol* we suppose is meant *naphtaline*, as the latter exists in the form, and possesses the properties described in the article. Naphtol is a light oil resembling rhigolene and is not soluble in alcohol.—*Translator.*]

BATRACOSIS.

By Dr. F. DeMarinis, from Giornale Internazionale delle Science Mediche of Naples. (Translated by Dr. JOHN DELL'ORTO, for the New Orleans Medical and Surgical Journal.)

[In publishing this paper the author says, that the only object he had in view, was to call the attention of the profession to a very serious, infectious disease of the mouth occurring in children, of which he did not find any description in any medical work. It is a peculiar fibroid growth, situated under the tongue, very common among the poorest class of children living in some districts of Southern Italy (especially in the province of Naples), where he has been practicing medicine during many years.

He calls it *Batracosis*—a derivation from the Greek—on account of its resemblace to the frog; and declares, that this disease is entirely different from *ranula.*

Prof. A. Raffaele, the distinguished editor of the journal, in which the article has been published, says, in a few introductory remarks, that a description of such a kind of tumor has been previously made in Italy, by Dr. Odoardo Pandolfi, in a communication sent to the Academy Medico-Chirurgical of Naples in 1875.

Later, in 1881, Drs. Antonio Riga and Chiariello, related in the *Movimento*, some cases resembling the same disease, that they observed in several villages of Terra di Levante.—*Note by the translator.*]

SYMPTOMS AND COURSE :—*Local Symptoms.*—The majority of the patients have been remarkably healthy up to the appearance of the primary symptoms.

The disease commences with a small spot of a white, pearlish color, and of the size of a common lentil, situated in the inferior extremity of the *frenum linguae* and on its interior face; it is rather hard, but painless. It is probably due to this absence of pain during the first days and weeks, that the mischief often remains unnoticed. After a certain lapse of time, however, generally of one or two months (dependent upon special idiosyncrasies, or from more or less bad sanitary conditions), the spot takes a rapid increase in every direction, and soon occupies both sides of the frenum, becoming white, and more consistent; but never getting any larger than a common bean: then it looks like a small rectangular plate (*piastrina*).

Sometimes the little tumor is of a single piece; sometimes it breaks in different points.

The consistance is coriaceous, but with the course of time becomes softer.

Thus there are two kinds of batracosis; that is, the coriaceous one, and the friable or vitreous.

In some instances the primitive spot grows only in the longitudinal and interior direction, and takes the shape of a small cauliflower, with a more or less movable peduncle. A peculiarity of this disease is the appearance and disappearance of the tumor at intervals of several weeks, and sometimes months. But finally the mischief settles definitely, and the whole constitution becomes infected, presenting the following

General Symptoms.—The nutrition of the little patients is promptly impaired; they grow lean and poor; their temperature is always low, and under the normal; as the attack advances, the child is unable to take any nourishment, emaciation proceeds to an extreme degree; temperature continues falling, the body becomes frozen, and incurable bed sores appear, followed by colliquative diarrhœas, and finally after a long agony, many times of several weeks, they die with all the symptoms of an infectious *cancerous cachexia.*

Complications—Different kinds of stomatitis, aphthæ, diphtheritic exudation, gastric and intestinal catarrhs very often are added to the list of the deleterious agent.

Etiology—Batracosis is a surgical disease, that attacks children between the age of one and ten years; it is very seldom observed in infants under twelve months. Poor living, dirty habits, uncleanliness of the mouth, bad sanitary conditions of the dwellings where they live, are to be considered as the main causes of the disease. The offspring of anæmic, lymphatic, eczematous, and syphilitic parents are more subject to it than others. Often several members of the same family are attacked at a time, rather on account of fault of hygiene than of a real contagion.

Nature—I am not prepared yet to define the histological nature of this growth; from the exterior and physical signs, however, I have every reason to believe that it is a fibroid tumor, of a malignant or cancroid nature.

Prognosis—It is a very grave, and intractable affection. At the commencement there may be a slight chance of recovery, but when the whole constitution is infected, it is unavoidably fatal.

Treatment—As the disease is an old acquaintance of this country, the traditional treatment, which has been in use since centuries, is still the best.

To cauterize the tumor, soon and often at short intervals is the general therapeutic principle. This may be done with solid nitrate of silver, or sulphate of copper, or with mineral

acids, more especially the hydrochloric; in the most tenacious and coriaceous form, the actual cautery and excision are indicated.

In the mildest cases, which are rare, the washings with chlorate of potash or alum, or of both combined in a mixture of rose honey and syrup of blackberries, have been found useful.

Meantime cod-liver oil ought to be administered, together with better nourishment and stimulants. The mouth and the body of the little patient must be constantly cleaned; the rooms are to be kept well aired and dry; in short, the physician must spare no means to prevent the general infection.

MEASLES IN THE ADULT—DIFFERENTIAL DIAGNOSIS—SIMPLE ROSEOLA. VARIOLA. PROGNOSIS, AND COMPLICATIONS.

(Translated for New Orleans Medical and Surgical Journal, by D. C. Holliday, M.D.)

Service of M. Joffray, Hotel Dieu.

The patient, who was discharged from our wards yesterday afternoon, had suffered from an attack of measles. A very common affliction, you will say, and to which as in the present instance, you attach but little importance.

I differ with you on this head, and if I recognized the disease at once, it was only after a rigid examination of the patient—with careful auscultation of both lungs, and discovering the presence of certain râles; the most to be gleaned is mistaking measles for small-pox.

Books will tell you that nothing is easier than the diagnosis of measles; they speak of the presence of photophobia, coryza and inflammation of the throat as characterizing the outbreak of measles, and the specific pain in the back as inherent to the invasion of small-pox, etc., etc. But you will find it not quite so easy to discriminate in practice.

Two years since, while I was in charge of the small-pox wards at *Saint Antoine*, where the number of cases of variola was considerable—frequently presenting symptoms of the greatest gravity—so much so that at one time the deaths amounted to eight or nine a day, at *Saint Antoine*—I saw frequently patients sent to the wards set apart for small-pox, who were subsequently found to develop symptoms of other eruptive fevers, but specially measles.

The number of these patients thus erroneously sent to these wards amounted to thirty.

You will thus appreciate how easy it is to confound these two diseases, variola and rubeola.

I will say, on the other hand, that patients said to be afflicted with measles, were frequently sent to the ordinary medical wards, who subsequently developed variola; and these mistakes had to be corrected by their being transferred to their special wards.

Such characteristic symptoms as are peculiar to each one of these diseases, are frequently absent at the invasion, and render an error in diagnosis often very easy. A very few days ago, a patient was admitted into a neighboring ward, the subject of small-pox, who was sent in as affected with measles, proving that the facilities for a correct differential diagnosis do not always exist.

Thus this patient on admission presented on his face patches closely resembling those peculiar to measles, some slight injection of the conjunctiva. Frequently in the outset of measles there appear papules, elevations on the skin so closely resembling the initial eruption of smal-lpox as to make distinction difficult, not to say impossible.

However, if these *first papules* occupy the *forehead*, the site of usual selection in measles, the mistake becomes never difficult, still they may be confounded with the eruption of acnè.

But on the back of the hands and lower part of forearm you frequently find the eruption of small-pox, and rarely or never that of acnè. It should always be kept in mind, that in the period of invasion, measles and variola may readily be confounded; a *hasty* diagnosis should therefore be avoided.

There exists one other disease with which measles is easily confounded. The error is not frequent it is true, but is sufficiently so for us to call attention to it.

I have reference to simple *roseola*, which, by the way, is sometimes epidemic, and, to which is applied the epithet of infantile or spring roseola. This distinction we consider erroneus, for it is an eruption which may appear at any season, and in adults as well as children.

I have met with two or three cases, one in a personal friend. I thought at first the case was one of undoubted measles. The eruption became general, but there was no congestion of the conjunctivæ, no coryza, no photophobia, no throat symptoms; no rales were discovered on auscultation in a word, there was a to'al absence of catarrhal phenomena.

Now, not believing in the existence of measles without the catarrhal complications, I soon changed my diagnosis.

We frequently meet with cases of measles when the symptoms of catarrh are *slight*, but they are *always* present to a more or less degree when sought for in their usual situations—larynx, bronchi, etc., etc.

The differential diagnosis between roseola and measles is of essential importance as to prognosis, which differs entirely in the two affections.

In roseola it is always favorable, exempt from all complications, and but slightly contagious.

In measles it may be serious, and is highly contagious.

Another element of diagnosis is in the progress of the eruption.

In measles the eruption does not appear simultaneously over

the whole body, as in roseola, but appears usually in the following manner: On the first day appearing on the forehead, chin, and around the mouth; on the second, on the trunk; the third, on the superior and inferior extremities. In a word, requiring usually forty-eight hours before becoming general.

The eruption in roseola, on the other hand, generally covers the whole surface of the body in a few hours,—the rash is often paler than in measles. The total absence of catarrhal symptoms in the rapidity of the appearance of the eruption in roseola forms a distinctive feature between this affection and measles.

It is my duty also to call your attention to another source of error, unless you have the eruption of measles before you. You may be called to a patient taken with a pretty high fever, general malaise headache, chilliness, coryza, injected conjunctivæ, etc. Moreover, furnishing no history of a previous attack of measles, you declare the patient as probably affected with that disease.

The following day on your return, to your great surprise, the patient is decidedly better. No eruption having made its appearance, you remain in doubt.

The following days this amelioration continues; the skin remains free from any rash. In four or five days more your patient is well.

What have you done in this case? Was it not simply a flagrant error in diagnosis?

You had confounded with measles, a simple cold with fever and slight sore throat.

When should we decide positively that we have under observation a case of measles? Usually this may be done, even during the period of invasion, before the appearance of any eruption, by carefully noting the course of the fever and examining the throat where the rash generally appears first.

Some authors declare that twenty-four hours before the appearance of any redness on the face, the throat distinctly shows patches of punctated redness. I am inclined to believe, however, that these phenomena are rare, and and the rule is for the eruption to appear simultaneously in the throat and on the skin under the same form.

The above concludes what I have to say with regard to diagnosis. Now as to the prognosis, this is usually determined by the range of temperature from the period of invasion.

Fever exists during the period of invasion and during the eruption, presenting slight remission between the two. During the first day the fever is slight—twenty-four hours after, the temperature frequently rises to 103.05. On the following morning there is a remission followed by an evening exacerbation. On the third day a more marked remission in the morning, and often an almost entire absence of fever during the day. The above is the best indication of the gravity of

the affection. If during the first day the temperature reaches 102.02, during the eruption, the maximum will be 104°. If the progress of measles be favorable, the remission complete and the thermometer falls to 100.04, or lower, there is every probability that no complication need be feared.

If, on the contrary, the temperature remains at 102.2, with no remission up to the third day, a severe case may be expected.

During the period of eruption the fever, even during the first day, may reach 104°, 104.9, 105.8, and in those cases not very severe. This high temperature should be of short duration, not lasting over 24 hours, lowering rapidly during the second day, and often disappearing entirely on the third.

In some cases the duration of the eruption is very variable. In these cases the fever is in direct proportion to the eruption. Our patient was an adult, therefore gave me no misgivings, for I believe measles never proves fatal in adults, notwithstanding the assertions of some authors to the contrary. I have treated a large number of cases in my wards, none presenting any severe complications, not even broncho-pneumonia, therefore lost none. If broncho-pneumonia is as rare in the adult as it is frequent in children, I think it due to the small size of the bronchi in children and their comparatively large size in the adult.

Again, measles rarely develops tuberculosis in adults, but in children it is frequently followed by tubercular deposit. I do not mean that tuberculosis is a consequence of the rubeolic attack, but if the subject of the attack of measles had previously to the eruptive seizure, a small point of caseous deposit in the tissues of his lungs, even not at all interfering with health or preventing the pursuance of ordinary duties, the measles incites development of the pre-existing disease. But I again repeat that this *pre-existence* of disease is necessary for its subsequent development. I again repeat that the prognosis is extremely favorable in measles in the adult. In my observation of over thirty cases, not a single one has proved fatal. —*Gazette des Hopitaux*, Nov. 9, 1882.

THE SIMPLEST MEANS OF EFFECTING THE HEALING OF WOUNDS BY AGGLUTINATION WITHOUT DRAINAGE TUBES.

By Prof. Theodore Kocher, Berne, Switzerland.

Translated for N. O. Med. and Surg. Journal, by Dr. F. Loeber.

During the International Congress in London, Prof. Kocher witnessed an operation of osteotomy of the femur, performed by Lister, according to the rules so classically laid down by that author. After the operation was finished the wound was simply covered with a corbolic dressing without applying sutures. The sutures, Lister explained, prevented rather than

induced healing of wounds when we have hemorrhage or oozing of blood to expect. In general, Lister's opinion is that the utility of antisepsis is clearly demonstrated, not in wounds closed by sutures, but in open unclosed wounds. Kocher thinks that in every day practice we should try to have healing by first intention. He does not deny that a great number of wounds are healed under Lister's antiseptic method, but a large number are not healed, and he has witnessed, in complicated operations, in spite of Lister's method, the most severe cases of infection. A healing by first intention in a large number of cases cannot be achieved by Lister's method, and the closing of a wound can only be attempted under the condition that a drainage tube be applied. This shows the deficiency of the method. The drainage tube is an evil, but not a necessary one, as he intends to prove. In a former clinical lecture Kocher showed that he achieved with solution of chloride of zinc equally good results as with carbolic acid, without running the risk of producing symptoms of intoxication. He uses a 2 per cent. solution of chloride of zinc constantly, more particularly in cases when suppuration had existed already for some time, and for cleansing and washing out large abscesses. Kocher recommends it most earnestly for trial to other colleagues, and is convinced that they will be gratified in its action. He reasons that after it has been demonstrated that in the different forms of inflammation different micro-organisms are found and that septic processes in wounds and suppurations are not produced by the same coco-bacteria, we have to expect that in fresh wounds and in wounds with already existing suppuration, the same disinfectant will or can have the same curative effect. The advantages of chloride of zinc over carbolic acid are that it is not poisonous and may therefore be applied in cleansing large abscesses until all pus is removed and the cavity perfectly clean. In all wounds, fresh as well as old, it is absolutely necessary that not only infection be prevented, but also that their power of support be destroyed.

Boillat has shown that chloride of zinc forms with the albumen of the tissues an albuminate of zinc which, at a normal temperature, under a glass bell, shows the development of micrococci thirty days later than in the albumen of tissues not treated with zinc, and that even the direct application of micro-organisms, as the spores of splenic favor, applied to tissues treated with the chloride of zinc did not develop. Kocher considers this fact of great importance, and thinks that not enough stress is laid upon it in antiseptic teachings. It is certainly of the greatest importance in suppurating wounds when micro-organisms have taken possession of the field. It is further very important, that phenol-albumen prepared in the same manner as zinc-albumen prevents the organization of micrococci only one day longer than the unprepared specimens, therefore twenty-nine days sooner than zinc albumen.

After washing the cavity of an abscess perfectly clean with the zinc solution, it is covered by an antiseptic dressing to prevent infection from without; the result,—the author says he has not seen an exception,—will be a satisfactory one. Generally one dressing is sufficient, but it is necessary to repeat the dressing if the temperature rises. To have these results the chloride of zinc must be perfectly pure and free from lead arsenic and cadmium, and its application must not be too long continued on tissues not well nourished. We cannot use chloride of zinc in the form of powder on account of its intense action on the tissues. It can be used only in weak solution, two per cent., to irrigate wounds, and the experiments of Boillat have shown that although its action is of much longer duration than carbolic acid, it is not so lasting or effective as some of the antiseptics which have of late come in use, as iodoform. The author speaks about its antiseptic properties, and recommends its use in ulcers, fistulas' chronic suppuration, and especially in syphilis. Its use in fresh wounds he considers too dangerous on account of its poisonous properties. Its action is only local, and to keep a wound antiseptic it is necessary that the iodoform comes in contact with every part of it. The necessity, therefore, of keeping large wounds well covered with iodoform makes its application dangerous.

The antiseptic Kocher recommends instead of iodoform is the sub-nitrate of bismuth. It has the common property with iodoform, that it acts only locally, not at any distance from its place of application. The sub-nitrate of bismuth has been in use for a long time as an astringent in abnormal secretion of the intestinal canal, and of late has been of great value to surgeons in preparing patients for laparotomy, since it was discovered that under its use tympanitis of the intestines was greatly diminished. He reasoned, therefore, that the sub-nitrate of bismuth must have antiseptic properties, and further possessed the property of only being slightly soluble.

To prove its antiseptic properties powdered bismuth was rubbed into small pieces of meat, these pieces remained exposed to the air fifteen minutes, after that they were washed thoroughly with water. The dirty water was thrown away and fresh water was added. The meat was then placed in a chamber of 106° F. Fresh pieces of meat, not rubbed with bismuth, but otherwise treated in the same manner, were also placed in the chamber. The fresh meat showed, already, after twenty-four hours, the characteristic smell and the microscopical picture of intense putrefication. Nothing could be found in those portions of flesh prepared with bismuth. After sixty hours and up to seven days a thin covering was discovered on the surface of the clear solution. This was shown to be aspergillus glaucous (penicilium). The solution underneath remained perfectly clear and inodorous until the eighth or ninth day, after that it commenced to be turbid and

putrefaction set up. These experiments were repeated over and over again each with the same result, and it was shown thus that the antiseptic power was greater than that of iodoform. Fresh pancreas treated with iodoform showed putrefactive changes the next day, but treated with bismuth only after five days. Another series of experiments was made by vaccinating sterilized gelatin, impregnated with a ten per cent. bismuth mixture, with a putrefying solution of meat; no micro-organisms developed themselves. Especially the most dangerous of this class, those which produced putrefication, were prevented from forming. This, according to Kocher, is the principal in the treatment of wounds. He says it is not so much the disinfection, meaning the total destruction of all micro-organisms, as the prevention of their development.

Experience in internal medicine has taught him that the sub-nitrate of bismuth can be given in very large doses without producing symptoms of poisoning, and Prof. Kocher commenced to treat wounds by applying bismuth to their surface in any quantity, and if he desired on some places a more intense action, he inserted tubes made of bismuth, but he had to abandon this method very soon since he saw, in a case of castration, that, although the healing process went on perfectly antiseptically, the wound did not heal by first intention, but by granulation; the application of bismuth had been very extensive and mechanically had prevented agglutination of the parts. In another case, resection of knee, where a large amount of fungous growths had been removed, he convinced himself that the application of bismuth above a certain quantity, may produce disagreeable consequences as acute albuminuria swelling and discoloration of the gums, stomatitis and enteritis with pain and diarrhœa.

After these experiences it cannot be permitted to apply bismuth in an indefinite quantity to the surface of a wound, and Prof. Kocher soon found that not only it was not necessary, but on the contrary positively injurious. Instead of applying bismuth in powder with a brush, he used a ten per cent. mixture of this substance in water and gradually diminished the strength until he convinced himself that a one per cent. mixture answered all antiseptic demands.

It is necessary to say something in regard to the method of preparing the bismuth mixture. To make it, it is necessary to take very finely powdered bismuth, add water gradually and rub constantly, all the time, until all large particles are reduced. In this manner only can we succeed in getting a kind of emulsion of bismuth with water, and, by shaking, an even distribution of the bismuth in the water is obtained.

Kocher's method of using bismuth in his clinic and private practice is as follows: Out of a bottle closed with a cork perforated by a glass tube, the bismuth mixture is squirted from time to time over the operated surface, so that all parts of the

wound, particularly loose cellular tissue, are covered by a fine layer of bismuth. In changing the dressing the same proceeding is repeated, and where the wound is closed with sutures, he applies a thick paste of this material with a brush over the wound and lets it form a crust. The same is done if the wound has healed, until there is only a small granulating surface. The first dressing is made by applying pieces of lint saturated with a 10 per cent. mixture of bismuth, and afterwards firmly pressed out; over these layers of lint, impregnated with bismuth, an india-rubber cloth is laid, and over this cotton wadding and a dry bandage. He has used this mode of treatment since the commencement of last summer's course, exclusively in his clinic and private practice, and has not lost a case, notwithstanding the most formidable operations were performed, as, for example, two ovariotomies, both healing by first intention in eight days, an excision of the larynx and oesophagus, to the extent of 8 cm., on account of cancerous degeneration, an extirpation of strumous glands with part of the trachea, etc.

Prof. Kocher states that although he has made use of, for precaution sake, in the commencement of this treatment with bismuth, carbolic acid compresses and chloride ofzinc solution for washing the wounds, he of late has avoided all other applications except the bismuth with the result above stated.

The sponges are preserved in a 10 per cent. solution of carbolic acid, but before using them they are washed thoroughly in boiling water. Instruments and hands are disinfected in the usual manner in a 5 per cent. solution of carbolic acid, and since using the weak solution of bismuth (1 per cent.) prepared and applied in the manner as above stated, he has had no symptom of poisoning, and this mode of treatment surpasses all others in respect to simplicity of application and certainty of result.

All these results Prof. Kocher obtained without the use of the drainage tube, but he says particularly that since bismuth, iodoform, and all other insoluble disinfectants act only locally and not to any distance, it is, therefore, absolutely necessary that we look carefully to the accumulation of blood and other secretions in wounds; this could be avoided by the use of a drainage tube,, but says he, "it was not at all imposing to me when I read that a wound healed two, three, four, or eight days after removal of the drainage tube, or as a surgeon told me the wound healed with the exception of the place where the drainage tube had laid, and by this expression confessed the imperfection of this system, since the fistulas resulting from the long presence of the drainage tube are often long in healing and frequently produce suppuration, I became convinced that even the soluble drainage tube possessed serious disadvantages; even though they are of great importance in regard to the convenience of the dressing. According to the publications

emanating from the clinic of Prof. Esmark, so-called permanent dressings may remain weeks without requiring a change, but just that circumstance, that they remain for weeks, proves that we have no healing by first intention."

This experience was the cause why Prof. Kocher sought for another mode of removing these secretions. It is well known that the open treatment of wounds, in places where it has been carried out in all its details and under favorable conditions, has just as good results as the anti-septic method; on the other hand it is clear that the open treatment of wounds, on account of the long duration of the healing process can never be the ideal method of the surgeon, on the contrary, we have to attempt above all things immediate agglutination. In combining the open treatment with the suture, Kocher appropriated the advantages of the first method without giving up the benefits of the second. He left the wounds open during the first twenty-four hours and applied an exact suture on the second day. Kocher says that this mode of treating wounds has been followed by others, but not in the same minute manner as he has done during the past year in combination with the bismuth application. He puts his sutures in the wound immediately after the operation is performed. He applies to the surface of the wound the bismuth dressing in the following manner:

Where the bleeding had not entirely ceased, lint saturated with the bismuth mixture was applied to the wound; where the bleeding had stopped entirely, a bismuth dressing was only applied over the wound and the margins were brought as near together as possible, after twelve, twenty four, and in some instances where oozing of blood continued, only after thirty-six or forty-eight hours was the wound permanently closed without leaving any opening. Cat-gut sutures cannot be used, only the more resisting silk ligature must be applied. This mode he has used not only in his clinic, but also in his private practice where he had to leave the closing of the wound to another fellow-practitioner. He comes to the conclusion that secretions in wounds cease after twelve or twenty-four hours, unless kept up by cause.

It is a well-known fact that secretions from a wound are, for the most part, caused by inflammatory changes of the surface of the wound, but at the present moment it is generally taken for granted that not only the collections of blood, but also collections of secretion have to follow a wound; a part of these secretions is due to extravasation, to the flowing of secretion from the cut lymphatics; the other part to transudation from the smallest blood vessels, capillaries, produced by a mechanical cause, increased blood pressure, produced through the exclusion of a large number of arteries, veins and capillaries. The oozing of lymph ceases very soon, as is shown by the glazed appearance of the wound. Of the sources of secretion

in wounds, it is difficult to determine how much is due to transudation from mechanical pressure and how much is due to irritation and inflammatory change. Be this as it may, the principal thing to do is to prevent, as for as possible, the extravasation from lymph and blood vessels, so that the wound may heal by first intention. Carbolic acid does not do this. Iodoform and bismuth are the principal agents to effect this. The latter is better on account of its astringent and disinfecting properties; but above all we have to be very careful to stop bleeding before applying any of the substances by ligature or otherwise. But not always can we with the greatest care stop all bleeding, and compression to the entire surface of the wound is required. In such cases Prof. Kocher leaves the wound open for from twenty-four to thirty-six hours, and geeerally under the use of bismuth all secretion has stopped. He then closes the wound by means of the ligatures which had already been applied but not tied.

The author says he does not intend to enter into a competition between bismuth and Lister's method; the principles of Lister's are the same as in the bismuth treatment, but he claims that the bismuth is superior to carbolic acid, in this regard, that it is more certain to produce the healing of wounds by agglutination, first intention.

He asks if any other surgeon would expect to heal with carbolic acid and with the drainage tube, a knee-joint largely opened, all fungous growths removed, closed without drainage tube and healed by first intention. Under the use of bismuth and closure of the sutures the next day, Prof. Kocher has done it.—*Sammlung Klinischer Vortraege*, Nov., 1882.

Editorial Department.

SALUTATORY.

As was intimated last month, our readers will observe that this Journal is now in new hands, and will henceforth be conducted by a new editorial corps. We wish everybody to understand at the outset, that both time and energy will be devoted to improving it in every respect. We wish everybody to understand, furthermore, that if we fail to make of it a first-class Medical Magazine, it will be from sheer lack of ability. We have already admitted that New Orleans is a proper place from which to send forth a medical journal, and

we have also confessed that medical journals of the best order are properly sustained. This is equivalent to saying that we will ask no favors. The matter will be placed on a basis of *qnid pro quo.*

At the same time we are aware that we are not to be overwhelmed with subscribers. The majority of our subscribers are to come from the South, and the South is not a land of readers. We have been informed by a book man that the State of Maine buys more books than all the territory south of the Ohio River, and that Boston buys more books than the State of Maine. Nevertheless, the medical fraternity of the South read medical journals, and enough of them have subscribed for the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL to have kept it going these many years. This is partly the hope upon which we build. There is no sentiment in trade. Men seek those markets that yield them the best bargains. Doctors are men, and medical periodicals must take their chances with other wares.

But one thing we ask, and that we trust to gain: other things being equal, to get the same recognition and patronage that are extended to medical journalism North and West. On account of some special features in our country, not necessary to mention, we see the necessity for medical men of one part of the United States keeping themselves informed in regard to medical progress in the other parts; and there are good reasons why those special forms of disease occuring in one part should be known and understood by those living in another.

This will, perhaps, become more apparent, if we merely refer to the size of our country, and the constant communication between even its extremest limits. Add to this the fact that invalids are constantly resorting to distant points North, East, South or West in quest of health, and the paramount importance of recognizing the type of disease peculiar to each division of the country becomes obvious to all.

It will be seen from this, that we have no sectional bias so far as regards medical journalism. We do not ask for subscribers at the expense of medical magazines, published no matter where. We simply ask to be sustained according to

onr merit. We know, that if properly managed, a medical periodical emanating from New Orleans can be made of practical benefit to medical men generally, and, as hitherto said, it is our purpose to render that benefit.

But we do not mean to be sectional, particularly in the material of our Journal. Whilst endeavoring to clearly represent medical progress in the southern and southwestern parts of the country, we shall at the same time attempt to represent medical progress everywhere. We hope to make clinical reports a prominent feature from this time on, and the latest developments in foreign medical science will be published from month to month. By these means, and others not yet fully completed, we hope to send out to the medical public every month THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL with such a table of contents as will give it a proper welcome from every physician.

FEMALE PHYSICIANS.

The Philadelphia Medical Times of Dec. 2, 1882, contains the address of Dr. Albert H. Smith, upon retiring from the Presidential chair of the *Philadelphia County Medical Society*. The address is admirable in every respect, but for the present we will note only one paragraph :

"But, in addition to the scientific work we have done, I cannot pass over, without doing violence to my inmost feelings, a forward step which our society has taken in the matter of our relation with our fellow-practitioners. It will be with no little glow of honest and virtuous pride that I shall recall during my lifetime the recollection that during my term of service the society did honor to its sense of moral obligation by an act of long-delayed justice and right; that it wiped out the past edicts of proscription and intolerance with which our records were stained, and our fair fame as men devoted to a pure philosophy deeply tarnished; that it ceased to sustain and foster that ostracism which petty jealousy and narrow-minded bigotry had aimed at a class of faithful workers in the field of medical science; that by an almost unanimous vote (would that it had been fully so!) we have at last proclaimed to the world that the little band of women who have been now these many years working in the same field as ourselves, struggling against persecutions and scorn and ridicule, yet loyal to truth for truth's

own sake, never wavering or faltering in their devotion and adherence to the principles of regular medicine, yet with the foot of the regular profession upon their necks, contributing year after year to the common stock of scientific knowledge, and working effectually for the diminution of human suffering —that these faithful and loyal women are no longer to be despoiled of their rights simply because they are women, powerless to compel the recognition of those rights, but that they are to be placed upon a footing of equality with applicants of the dominant sex, subject only to the same conditions and qualifications for membership; that at last we have had the manliness to admit the claim of women to admission to our ranks, a claim, as I hold it, not upon our favor or our courtesy, but of absolute and inalienable right."

These are honorable and straight-forward utterances, and the act that called them forth was decidedly a proper one. It is one more argument against the oft-repeated saying that the weaker sex is hampered and deprived of its just rights by the stronger. It may appear so, but as a matter of fact, men have never deprived women of their rights. Permanently, we mean, of such rights as they proved themselves able to use. It has always come around in the end that if they were competent for the task, it became theirs. Just as now, they have been trying to prove themselves capable of practising medicine, and the opportunity is granted.

There are men who doubt woman's fitness for this work. But their doubting does not arise from jealousy, or any pettiness of spirit. If they doubt, it is because woman has given them cause. This must be so. How was it in the earliest stages of society? Anthropologists tell us that among the lowest races men and women are nearly equal in physical and intellectual development. As they progress in civilization, man takes the lead, and holds it increasingly. According to Le Bon, "the difference in the average cranial capacity of modern Parisian women is nearly double what is observed between the masculine and feminine skulls of Egypt."

In this are seen the results of evolution. Zoölogy shows that among the lowest species of animated life, the female is superior to the male. At a somewhat higher stage, they become equal, and at a still higher, the male passes and becomes the superior. The law, therefore, antedates man

His development is only one of its results. That he has better blood, muscle, bone, brain, in short, better tissues, depends not upon legislation nor custom, but upon the unalterable law that underlies the whole process of evolution.

We feel safe in saying then, that if women are fitted for practising medicine the opportunity will surely come. Seeing that it has not come before this might make one a little suspicious about their fitness. Many centuries ago chairs in medical schools were filled by women, and filled ably; but this did not increase the number of female physicians. For ourselves we believe women unfitted to practice medicine, but we have no patience with the spirit that would prevent them from trying. We believe the attempt will be vain. Women are handicapped by the function of maternity, which has been necessarily regarded in the evolutionary process at the expense of those factors which count highest in fixing physical and intellectual status, factors that have had free play in *man's* development.

It will be, we imagine, as it is with the arts, especially music. In this country ten girls study music to one boy, but there is yet to come a female Gottschalk. Notwithstanding, opportunities have been amply afforded, as the piano makers can testify. If women have the second place in the ordinary vocations of life, it is not from narrow-minded restrictions on the part of man, not from legislation; but because of a deeper reason, that she is an outcome of biological law, and the saying of Bischoff, that "women have suffered no other hindrances to the exercise and evolution of their brain and their intellect than those that are derived from their constitution and their faculties of development" is true, and the action of the Philadelphia County Medical Society is an instance in proof.

Reports of Cases.

I.

Case Illustrating Antagonism of Medicines, Touro Infirmary.

Service of Dr. F. Loeber.

D. H., aged 21 years, a native of Wales, married, engineer of an English steamer. Entered the infirmary Saturday, 4, P. M., suffering from irritability of bladder, and constant desire to urinate. No fever, pulse and respiration normal; a number 12 catheter introduced, small quantity of urine drawn. No stricture, nor stone. Ordered a warm Sitz bath and flax seed tea *ad libitum*.

Sunday, 9, A. M. Patient had a chill at 6, A. M.; temperature 103 F., pulse 120, respiration 22 in a minute; skin dry. Ordered neutral mixture and 15 grains quiniae sulph. At 1½, P. M., was informed by nurse that patient was dying. Found him in a state of perfect congestion. Skin cold, clammy, and of a bluish color. Pulse above 130 a minute; very difficult to count. Temperature 105½ F.; respiration four in a minute and stertorous. Pupils contracted, and conjunctivae insensible to touch. According to Fothergill's suggestions gave him ten grains of ammoniae carb. and five drops of fluid extract of belladonna, dissolved in a teaspoonful of water. After a lapse of five minutes, no change of symptoms; dose repeated. About three minutes after swallowing the second dose respiration increased to six in a minute; pulse, skin and temperature the same. Waited ten minutes; symptoms the same. Gave third dose. While swallowing it he coughed, and respiration increased to ten a minute. The ears commenced to loose their bluish color and looked red. Pupils still contracted. Another dose was given fifteen minutes afterwards, and five minutes after administering it respiration increased to fourteen in a minute, pulse 120. Still unconscious. Pupils contracted; conjunctivae less insensible to touch. Half an hour afterwards, another dose given. Coughed several times when swallowing it. Skin commenced to look red and feel warm,

except at the extremities. Respiration increased to eighteen a minute. Pulse 110, pupils still contracted; conjunctivae sensible to touch. One hour and a half after commencing treatment patient was conscious; sat up in bed and was able to tell the correct street and number where his friends were living. Gave twenty grains of quiniae sulph.

6, P. M. Temperature and pulse 100; respiration normal; pupils a little dilated; had taken two cups of milk. Perfectly rational. Ordered 15 grains quiniae sulph. to be given at 8, P. M., and milk *ad libitum*. Monday, 6th, 9, A. M. Has slept well and feels all right. Temperature, pulse and respiration normal. Ordered 15 grains quiniae sulph. morning and night; milk continued. 6, P. M., feels well; has taken about ½ gallon of milk, desires to have more substantial food.

Tuesday, 7th, 9, A. M. Temperature, pulse and respiration normal. Patient has not slept since midnight. Talks all kind of nonsense, and acts like a man suffering from delirium tremens. Ordered potass. bromide, thirty grains every 3 hours. Milk continued. 6, P. M., still more excited. Ordered 30 grains of bromide of potash, combined with 15 grains of chloral hydrate every two hours till quieter.

Wednesday, 8th, 9, A. M. Patient perfectly wild, had to be strapped to his bed. Foams at the mouth, fighting with imaginary cotton bales, etc., but took any quantity of milk as often as it was given to him. Ordered 30 drops of liquor opii. (Battley's) every 2 hours. 6, P. M., no better. Excitement the same. Ordered half pint of infusion of hops, — one ounce to the pint. The effect was marvelous. In less than 10 minutes the patient was fast asleep, and slept till 11, P. M. A pint of milk was then given to him, and another cup of hop tea, after which he slept till next morning, and awoke perfectly rational and well. No more medicine. A week afterwards resumed his duties on board the steamer.

II.

Danger of Using Cooking Utensils of Galvanized Iron; Iron Dipped in a Bath of Melted Zinc.

October 6th, 1 o'clock A. M., was called to the house of Mr. P. N., a client of mine, and found the whole family suffering, more or

less, from vomiting and pain in the abdomen. The lady of the house informed me that they all had been well up to the evening before. Had eaten nothing unusual, except ice cream after dinner. Did not believe that the ice cream was the cause of the trouble, since it was made in her own house and she herself had given the ingredients to her cook. The milk was not furnished by a milkman; they had their own cows.

The symptoms of all were not very severe, with the exception of a boy, 10 years old, who had taken several plates of the cream. One of the children was asleep already, and the others were relieved by a few doses of opium. But the boy I found in a state of perfect collapse, body cold, pulse very feeble, intellect clear. Nothing could be retained by the stomach, so I administered one ounce of very strong coffee and one-half ounce of brandy by injection, and had to repeat it four times in intervals of half an hour, till reaction took place. After that a dose of opium relieved his pains and he also fell asleep. All were kept on milk diet for a few days and no bad effects followed.

Some of the ice cream was examined, and chloride of zinc found—evidently the cause of the poisoning. The ice cream freezer, made out of galvanized iron, had not been in use for several months, the family having just returned from a trip, of several months duration, from Europe. The cook instead of cleaning the freezer herself, had given it to be done by the dining-room servant, and he must have done it in a very careless manner or not at all. Nothing could be detected wrong with the freezer itself, with the exception of some abrasions of the zinc covering. It had been washed and cleaned immediately after dinner was over.

III.

Poisoning by an over-dose of Nux Vomica,

Reported by Dr. Joseph Holt.

I was hastily summoned about midnight, a few weeks since, to see a lady, Mrs. R. C., who was reported to me as being threatened with convulsions, the result of having accidentally poisoned herself.

I found her in a most distressing condition. The muscles of the jaws, neck, back and legs were in a state of tonic rigidity, aggravated into recurring seizures of clonic spasims with episthotonos. The attack had commenced not longer than ten minutes before I saw her, and was rapidly increasing in intensity. Both the lady and her husband were profoundly alarmed and very justly too. The history of the trouble was this: Mrs. C. had received from a friend—not a physician—a *valuable prescription* (*?*) for habitual constipation; a formula for pills, containing each, one and a half grains of extr. nucis vom. The madame, at full term of a third pregnancy, and sorely annoyed by an obstinate torpidity of the bowels determined to try a good dose of the new remedy, and at late bed time took three of the pills, or four and a half grains of the extract of nux vomica, an excellent article of drug. As soon as the pills began to dissolve and absorption commenced, the symptoms of poisoning manifested themselves.

Without delay I administered forty grains of chloral and stimulated the patient freely with whisky. Relief was immediate and complete. A few hours later labor occurred, anticipating the expected time, and precipitated, I believe, by the action of the nox vomica upon the uterus.

No further trouble.

CORRESPONDENCE.

THE BACILLUS TUBERCULOSIS.

Editors N. O. Medical and Surgical Journal:

DEAR SIRS—As the existence of the so-called bacillus tuberculosis, first spoken of by Prof. Koch, is still a matter of dispute among medical men, in order to clear up the subject to a certain extent, I beg leave to submit the following, which is in substance the statements of Dr. Balmer and Prof. Fraentzel in an article published in No. 45 of the *Berliner Klinische Wochenschrift*, of November 6th, 1882.

These gentlemen have based their conclusions on experi-

ments made with the sputa of one hundred and twenty patients affected with tubercular disease of the lungs, and succeeded in proving the presence of the said bacillus in every case. Their mode of examining the sputa was as follows:

A small quantity of the sputum to be examined (about the size of a hemp seed), was taken up by means of a well-cleaned forceps and placed between two cover-glasses from 0.10 mm. to 0.20 mm. in thickness. The glasses were then pressed slowly and tightly together, and the particles of sputum adhering to them were dried by passing the glasses a few times over the flame of a gas-burner. They were then immersed in a coloring solution, and left there twenty-four hours. This solution is prepared either from gentiana violet, or from fuchsine dissolved in aniline water (1:50). The aniline water is obtained by shaking a quantity of aniline oil with pure distilled water, and filtering it.

The glasses when taken from the liquid, were washed with distilled water and placed in dilute nitric acid (1:3), until the fragments of sputa adhering became entirely discolored. Then they were removed, washed again with distilled water, and put into another coloring liquid to give a so-called ground color to the non-pariasitic elements.

If a solution of gentiana violet had been used, a filtered solution in water of Bismarck brown was employed; if fuchsine, a solution of methylin blue in water. They were left in the solution for from one-half to one minute, taken out, re-washed with distilled water, and dried with bibulous paper. Finally the glasses were freed by a drop of Canada balsam, and made ready for microscopic examination.

The results of these microscopic examinations showed the following facts in regard to differential diagnois and prognosis:

The prognosis in a case of pulmonary tuberculosis can be determined with certainty by the number, and the degree of development, of the bacilli found in the sputum of the patient. In all cases where the bacilli are well developed and in large quantities in the sputum, the prognosis is unfavorable. It becomes better in proportion to the diminution of the bacilli.

Enormous quantities of them are found in cases having a rapid course.

The number of bacilli throughout the course of the disease is not the same, but increases with the process of destruction of lung tissue, and reaches its maximum *sub finem vitae.* The distribution of the bacilli is not the same in all patients. In some they are uniformly distributed, in others they appear in groups. Their development also varies to a great extent. In many cases they are small, emaciated, and have no spores. In such cases they are always few in number, and found in patients in whom the disease progresses slowly, or is altogether stationary. As, for instance, the old isolated cavities in sound lung tissue.

Large bacilli of a higher degree of development, and possessing spores, are found in those cases which run a rapid course, and are characterized by fever, nightsweats, etc., etc. In fact in every case where fever existed a large number of bacilli was found in the sputa. On the other hand, where fever was missing a few only, and these poorly developed, were seen.

There is a great difference between the amount of bacilli in the sputa from fresh lung cavities, and those contained in the walls of them. In the former, they are numerous; in the latter, very few are found. It seems, therefore, that the sputum is more suitable to their nutrition than the living lung tissue.

The access of oxygen to the cavities seems to have no influence upon the propagation of these organisms, as they were met with in as large quantities in purulent exudation taken from tubercular arthritis of the knee.

Bacilli were found not only in the sputa and in the walls of the lung cavities, but also in the tissue, and in the contents of abscesses in a tuberculous lung, in the walls of intestinal ulcers, and in the pus of tubercular arthritis of the knee. It follows, therefore, that a discovery of these organisms is of great value not only in the differential diagnosis of lung diseases, but also in tumors, anthritis, etc., etc.

In conclusion, to show the difficulty of disinfecting sputa,

it may be mentioned that coloring of the bacilli took place even after the sputa had been dissolved entirely in a strong solution of caustic potash, or when submitted to a solution of corrosive sublimate (1: 1000) for twenty-four hours.

Very truly,

L. H. VON GOHREN, M. D.

219 Canal Street,
New Orleans.

REVIEWS AND BOOK-NOTICES.

A Manual of Hypodermatic Medication. The Treatment of Diseases by the Hypodermatic Method. By Roberts Bartholow, M. A., M. D., LL. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, etc. Fourth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co. New Orleans: Armand Hawkins, 196½ Canal street. [Price, $2.]

This standard work has now reached its fourth edition. The rapid progress made in the use of the alkaloids and in subcutaneous medication, necessitates the revision of a work of this character, and Prof. Bartholow has selected much of value from the recent numerous experiments that have been made and added the same to his already meritorious work.

The author has substituted the word *hypodermatic* for the commonly used *hypodermic*, and says, "my action may or may not be generally approved, but the change is urgently demanded in the interest of a correct nomenclature. To make the attempt at substitution successful it will be necessary to have the co-operation of medical authors. The unanimity of scholars in regard to the incorrectness of *hypodermic* is surely sufficient justification for combined effort." We suspect that the task will be a difficult one, inasmuch as *hypodermic* is found in all text books and medical writings and has become a familiar word, not only with the profession, but with the laity as well.

The book opens with a history of subcutaneous medication, followed by the "method" and a list of the remedies used in

this system. Then follow descriptive directions for the mode of preparing the different solutions with details of their physiological and therapeutic effects. In regard to the solution of quinia for hypodermatic use the author recommends the following as preferable to all others:

℞ Quiniae di-Sulph .....gr. 50
Acid, Sulphuric, dil.....M 100
Aq., Fontanae.....ʒi
Acid, Carbol. liq.....M 5

The manner of preparing the solution is given in detail.

Some years ago we engaged in some experiments upon lower animals with solutions of quinine for subcutaneous use, and after numerous trials with different solutions found that something similar to the above, that is, a solution of the bi-sulphate of quinia with carbolic acid alone, was the only one which was not followed by irritation and abscess.

The subcutaneous injection of chloroform has been recommended in *sciatica*, and the author cites twelve cases treated by him of which eight were cured, two improved and two received no benefit. The intense pain produced by the injection of this agent has deterred many physicians from employing it; but, it is stated that this is to a great extent obviated by the method of *deep injections*.

Inasmuch as our patients are now clamoring for elegant preparations, and it is fashionable to complain (and that very justly) of bad tasting drugs; and as chemistry has made such great progress in preparing the alkaloids for medicinal use, perhaps the time is not far distant when most of our remedies will be given subcutaneously. At all events, the great advantage of this method of medication in numerous cases where the prompt action of a drug is imperative, or in which there is no other mode of its administration, owing to accidental causes, renders it necessary that every practitioner should familiarize himself with the use of the syringe and the manner of preparing proper solutions; also, with the drugs which may be used by this method, and their doses.

Prof. Bartholomew has earned the thanks of the profession not only for being the first to prepare a work upon this special

subject, but also for the thorough manner in which he has treated it.

To be acquainted with the author's pleasing style is to know what a readable book it is.

Annual Report of the Supervising Surgeon General of the Marine Hospital Service of the United States, for the Fiscal Year 1882. Washington: Government Printing Office, 1882.

This report, a volume of over three hundred pages, gives a creditable showing of what the Marine Hospital Service does from year to year. It appears that more than 36,000 seamen have been furnished relief during the past twelve months. Some three hundred men of the Revenue-Marine, Light House and Merchant Services have been examined as to physical ability, and two thousand and ninety pilots examined for color blindness. Of the latter, sixty-three were rejected. In addition, three thousand two hundred and seventy-eight seamen have been vaccinated at different ports, with the significant showing that fewer cases of small-pox developed among boatmen than among the inhabitants of cities where that disease prevailed.

These figures afford a tolerable idea of the large amount of work done by the officers of the Marine Hospital Service.

The report contains a vast array of tables, wherein diseases and injuries are elaborately classified, and comparative statements of diseases peculiar to each district concisely tabulated, all of inestimable value to the statistician.

So much of the report as is directly the work of the chief of the service, shows him to be a clear-headed, practical, economical officer. This is particularly noticeable in the prompt and efficient steps which he took to suppress an outbreak of small-pox in Montana; in his suggestions in regard to creating pest-houses for those suffering with contagious diseases; in the measures which he has instituted for the benefit of commerce and vessel-owners; and in the records which he is preserving for the benefit of science.

It would take too much space to make specific mention, but we notice papers on a considerable variety of subjects, some

quite elaborate, and with each always one or more illustrative cases.

Nearly a hundred pages are devoted to fatal cases, with autopsies. From these manifestly one may glean a great deal of information; nevertheless, we think that many of the autopsies were done in a somewhat perfunctory manner.

We see with some surprise that the name typho-malarial fever is thought worthy of adoption.

The report closes with a temperate but eloquent article on the inhuman treatment of deck hands on steamboats plying the Mississippi and its tributaries.

A Guide to Therapeutics and Materia Medica. By Robert Farquharson, M.D., Edin. F. R. C. P., Lond. Late Lecturer on Materia Medica at St. Mary's Hospital Medical School, etc. Third American edition, revised by the author. Enlarged and adapted to the U. S. Pharmacopeia, by Frank Woodbury, M.D., Physician to the German Hospital, Philadelphia. 12 mo. pp. 526. Philadelphia: Henry C. Lea's Son & Co. 1882. New Orleans: Armand Hawkins, 196½ Canal street.

The author, by an ingenious arrangement in parallel columns, places in juxtaposition the physiological effects of drugs and their therapeutical applicability, thereby seeking to do away entirely with empiricism and showing the reason why they should be given in certain diseases. The arrangement is a convenient one and at once presents to the view of the reader the effects of medicines in health and disease.

In speaking of the methods of administering medicines, the author (page 27) makes the astounding statement that owing to the local effects produced by certain drugs administered subcutaneously, "we are practically almost restricted to morphia, atropia and strychnia." In this progressive age of the use of the alkaloids, such as pilocarpine in effusions, eserine in tetanus, hyoscyamine in nervous and mental diseases, ergotine in haemorrhage, and other medicines which experience has demonstrated are often best used hypodermically, such a statement from the author will hardly be endorsed by the medical profession.

Again, iodoform is not mentioned by the author, but the

American editor has devoted *five lines* to its therapy. When we consider the number of uses to which iodoform has been put and found beneficial, it is very remarkable that little or nothing is said of this, one of the most useful drugs in the surgeon's list of topical remedies. Outside of these and one or two other such noticeable defects, the properties of the entire list of drugs are thoroughly and plainly discussed, following the plan which was mentioned above.

The physiological is balanced against the therapeutical action of each drug, and arranged in diagrammatic form in opposite columns and treated of in the following order:

Its local or external action; its influence on the brain and spinal cord; its effects on the circulatory system; its effects on respiration and temperature; the alterations produced upon the different secretions; its specific actions; and lastly, the modes of elimination, antidotes, contraindications, and best mode of prescribing. A very useful appendix contains a list of poisons and antidotal treatment, a short chapter on the recently discovered *Ptomaines*, a table of weights and measures, and tables showing the relation of metrical weights and measures to weights and measures of the U. S. Pharmacopeia.

The student will find this work a very useful and instructive text book, and the busy practitioner a valuable book for reference.

A thorough study of its contents will prove valuable to many, who prescribe empirically and will do much towards attaining rationalism in therapeutics.

A Practical Course in Medical Chemistry. By John C. Draper, M. D., LL. D., Professor of Chemistry in the University of New York, etc., pp. 71. New York: William Wood & Co.; New Orleans: Armand Hawkins, 196½ Canal st. [Price $1.]

Medical students as a rule have but little time for practical manipulations in the chemical laboratory, and the want of a good hand-book to assist them is now supplied by this little work which is intended only for the student, whose time is too much occupied to enter into a thorough course of instruction

in the details of analytical chemistry and toxicology, much of which must be learned outside of the medical college.

The book is gotten up in a convenient form, with every other page left blank so as to enable the student to record his work and make notes of lectures.

It is just the book for medical students.

Questions on Human Anatomy. By Samuel O. L. Potter, A. M., M. D. With sixty-three illustrations. Philadelphia: P. Blakiston, Son & Co.; New Orleans: Armand Hawkins. [Price $1.]

This is No. 1 of a series of quiz compends, designated for the use of students.

We deprecate the use of such books as being calculated to lead students to depend upon "cramming," rather than upon memory of well digested facts, learned by careful study, in the legitimate manner, still to those desiring to post themselves hurriedly for examination this little book will be useful in refreshing the memory.

A System of Surgery; Pathological, Diagnostic, Therapeutic and Operative. By Samuel D. Gross, M. D., LL. D., D. C. L. Oxon, LL. D. Cantab. Illustrated by upwards of sixteen hundred engravings. Sixth edition, thoroughly revised and greatly improved; in two volumes. H. C. Lea's Son & Co. For sale by Armand Hawkins, 196½ Canal street, New Orleans.

It is now nearly a quarter of a century since this great work was first given to the medical public. From the first it took rank commensurate with its claim, for it is indeed a "System of Surgery, Pathological, Diagnostic, Therapeutic and Operative." It is the common conviction that the sciences thrive best under the fostering care of Governments. The bread and butter problem is supposed to thrust its unseemly self betwixt the scientist and his labors at such untimely hours as to retard them materially. As a matter of fact the bread and butter question generally does interfere, and scientific pursuits are hampered thereby, unless a snug annuity assures the daily breakfast.

Nevertheless, the work before us shows what great things

may be done by unaided individual effort. It was wrought by its author while plying his profession in common with other American physicians. There was no rich Government University behind him; but all the same, Gross' System of Surgery can easily hold its own beside the works of the great European masters.

Every page of its twenty-three hundred bears evidence of industry, learning, research, discriminative ability, and above all, of a quiet judicial turn of mind that permitted its possessor to observe, to weigh, and then to decide questions germain to his subject. The work is now in the sixth edition, revised throughout, and according to the author, greatly improved. We say according to the author, for the views of so great a surgeon in regard to his own work may be accepted without much hesitation. But besides his own work the two volumes are enriched by the help of gentlemen eminent in special branches of surgery, and it is possible that Prof. Gross generously refers to their labors when he speaks of improvement. In one respect the work is unique. We refer to the diagram and text for Cranio-Cerebral Topography, for which credit is given Prof. Seguin of New York.

This is nearly all we have to say by way of special mention. Gross' Surgery has been reviewed so often, the merits of its contents have been set forth so plainly, and such commendations have been bestowed upon it, both at home and abroad, that we feel as if more minute criticism would be regarded as supererogatory.

If we had to particularize, we should speak of the chapter on tumors. Its classification is eminently perspicuous, its general treatment clear and decisive, and its pathology abreast of the times.

In the chapter on Venereal Diseases the author acknowledges, in consequence of the testimony offered by a vast number of syphilographers of unquestioned ability, his conversion to the doctrine of dualism. We are sure that he has pupils in many lands that will be glad to learn this.

Works shorter and more concise may substitute it as text books, but there is no work on surgery that can substitute it

for the surgeon—nor, for the physician in general practice. The volumes before us are handsomely bound, neatly printed, and abundantly and finely illustrated. In a word, author and printer have co-operated to make a work which may be summed up in the closing words of the author's preface: "In the marvellous revolution now in progress, it is gratifying to find that American surgery is fully abreast of the surgery of other nations."

NOTE.—We learn from the publishers, J. B. Lippincott & Co., that the Fifteenth Edition of the U. S. Dispensatory will be ready for issue in January, 1883. The work has been under revision for the past three years, and from the ability of its editorial corps, we may well expect important additions to this already most excellent work.

PUBLICATIONS RECEIVED.

A Guide to Therapeutics and Materia Medica. By Robert Farquharson, M. D., Edin., F. R. C. P. Lond., etc.

A System of Surgery. By Sam'l Gross, M. D., etc.

Annual Report of the Supervising Surgeon-General, Marine Hospital Service.

Fourth Annual Report of Board of Health of the State of Illinois.

Illustrated Quarterly of Medicine and Surgery. Vol. I, No. IV.

Allen's Human Anatomy. Section I, Histology.

Analysis of 8,000 *Cases of Skin Disease.* By L. Duncan Bulkley.

Biennial Report of the Alabama Insane Hospital at Tuskaloosa P. Bryce, M. D., LL. D., Supt.

Medical Items.

Treatment of Erysipelas.—Dr. Henry G. Piffard (in *Archives of Dermatology* for October, 1882), after summing up the methods of treatment mostly in vogue, writes as follows:

Some years since, in looking over the back volumes of the *Lancet*, I was attracted by the report of some cases of erysipelas treated by the eminent English surgeon, the late Mr. Liston. He advocated the use of aconite and belladonna as preferable to any of the other methods with which he was acquainted.

A few months after reading Mr. Liston's statement, I had an opportunity of trying his plan, and from that time to the present, the drugs mentioned have been with me the mainstays of treatment, both in the idiopathic and traumatic forms.

The following cases illustrate the main points in the methods that I advocate:

Case 1. Mr. A. B., a gentleman 37 years of age, contracted syphilis fifteen years ago, and was treated by me for tertiary manifestations of the disease in November and December, 1880. He has been a hard drinker for years, and has had several attacks of idiopathic facial erysipelas, each of which confined him to his house two or three weeks. On January 28th of the present year he sent an urgent request to call at his house. I visited him about 10 o'clock in the morning and found that he was suffering from another attack of facial erysipelas that had commenced the day before, while *en route* from the South to this city. The trouble had commenced on the nose, spread over the cheeks, mounted to the forehead, and was progressing towards the scalp.

The temperature was 102.2° F.; pulse 130, and full; tongue furred, skin dry, no appetite; headache and some prostration. Ordered tincture of aconite root, to be repeated every hour, until moisture appeared on the skin, then every two hours until evening. The inflamed integument to be thoroughly coated with a mixture of equal parts of unguentum belladonnae and unguentum simplex. No food to be taken during the day, but lemonade or carbonic acid water *ad libitum*. I saw him again at nine o'clock in the evening. The erysipelas was stationary and his general condition improved, as follows: Skin moist, temperature 99.4°; pulse 100; and wants to eat; in addition, pupils widely dilated, vision impaired, and throat dry. He feared that the erysipelas was leaving his face and going to his throat and eyes. Assured that it was the belladonna and not erysipelas effecting these parts, he was ordered to take two doses of aconite during the night, and was permitted to eat a bowl of gruel, and to repeat it for breakfast.

if he felt inclined. On the following morning to take a dose of aconite if feverish, but if pulse below 90, to take instead, two grains of quinine and repeat at noon.

January 29th.—Saw him at 2, P. M., and found fever gone, pulse 85, tongue cleaner than the day before, tumefaction of the skin less, feeling in every way better, except as regards his throat and eyes. Ordered to discontinue the aconite definitely, to use less belladonna, and to continue the quinine two grains three times a day, and to have a more liberal diet.

January 30th.—Erysipelas almost gone; discontinue belladonna, continue quinine, and resume usual diet.

January 31st.—Last visit, patient practically well, may leave his house and attend to business to-morrow.

After giving details of a case of erysipelas following on a felon, treated in the same manner, the doctor continues:

I select these two cases as they represent both the medical and surgical aspects of erysipelas, and both show immediate amendments as soon as the patient is fairly under the influence of the drugs. It will be noticed that the aconite is given in doses sufficient to produce defervescence, and the belladonna until the constitutional symptoms produced by the drug are apparent. The aconite it discontinued when the fever subsides, and the belladonna diminished as the local condition improves. The quinine is given, not as an apyretic, in fact not until the febrile action has subsided, and then only in moderate doses. Since adopting this method of treatment, it has been my fortune to meet with cases in early stages only, and in these I confidently recommend it.

The Treatment of Erysipelas.—In the *Wiener Med. Presse*, June 18, 1882, Dr. Hastreiter recommends the treatment of erysipelas by painting with oil of turpentine, on the following grounds: 1. It can be employed on the most sensitive patients, does not require any skill, and can be applied by the patient himself as often as may be necessary, and the irritation produced by excessive friction is avoided. During its application the eye should be protected by a pad. 2. When employed frequently enough this method is perfectly safe, and tends to produce a rapid cure. 3. Oil of turpentine can be procured everywhere. 4. All other dressings are unnecessary. 5. Internal antipyretic treatment is only rarely necessary; usually all that is necessary is to bathe the body with cold water, and to make use of cold applications to the head. 6. The inhalation of the vapor of turpentine can, perhaps, act as a preventive of the extension of the disease to the air-passages. 7. When employed at the outset of the disease it may abort the morbid process. 8. The oil of turpentine may also be employed in phlegmonous inflammation other than erysipelas.

In the *British Medical Journal*, August, 1882, Dr. C. S.

Hutchinson records a case of a large, robust man, who was thought to be *in extremis* from a violent attack of idiopathic erysipelas of the head and face. Iron and the usual internal remedies had been tried, but no external application had been used. Iodine was now painted on the scalp. This had a magical effect, the patient being out of danger two days afterward, the amendment beginning with the first application of the iodine. Dr. Hutchinson has never before seen so desperate a case recover so quickly. It should be remembered, however, that the occasional value of iodine in erysipelas has been known for many years.—*Medical Record*, Dec. 9, 1882.

Diagnostic Importance of Rectal Examination in Stone of the Bladder.—R. Volkmann, who made the above subject a special study, advises, that with relaxed abdominal walls, under deep narcosis, especially in slim individuals of youthful age, while introducing one finger into the rectum and applying the palmar surface of the right hand to the abdomen, the stone should be pushed up to the pubic bone and held there with the latter hand. He says it were then easily possible to grasp it perfectly, and he actually demonstrated the fact to his students, a number of whom he permitted to get hold of the stone. (*Arch. f. Chirurg.*, 1882, No. 11.) If the stone is not too large, it can be lifted up with the soft parts, and so high that it could be tied with a ligature, a fact which V. mentions, not to recommend it as an operation for stone, but to be made use of in movable cystic tumors, as in cases of papillomata with long pedicle, or in cases of myoma, which could well be extirpated in such a manner.—*Medical and Surgical Reporter.*

Dislocation of the Astragalus.—W. A. Hunt, R. C. P., in *British Medical Journal* of Dec. 2, 1882, writes as follows:

"At a recent meeting of the Royal Medical and Chirurgical Society, Mr. Barwell's interesting remarks on an example of this rare accident, raised a discusion equally interesting; and in general, removal of the bone was advised, at any rate, where torsion or version of the astragalus was present with dislocation. Some years ago a case occurred to me. A policeman, in a street quarrel, injured his left foot. When he was brought to me I found the astragalus dislocated forwards, and its round convex head made a prominence under the skin of the dorsum of the foot, which looked and felt exactly as if a small billiard ball was underneath. My first impulse was at once to put the man under chloroform, anticipating great difficulty or even impossibility of reduction. On second thoughts, I decided to have one fair trial at once; and directing him to grasp the head of the iron bedstead he lay on with both his hands, and hold on, I got a powerful man to extend his foot, whilst I

pressed on with both my thumbs, and with all my might on the head of the bone. To my surprise and gratification, the bone went back with a loud snap into its proper place, and in a week I allowed the man to leave the hospital.

A NEW ANTISEPTIC, which promises to be of considerable value, is boroglyceride, a compound discovered by Prof. Barff, and described by him about a year ago. It is probably a borate of glyceryl. It is tasteless, and, when cold, brittle, hard and dry. In solution, it acts as an efficient preservative of meats, eggs, cream and butter, without communicating any unpleasant flavor whatever to the preserved substances.

M. Le Bon has now introduced two compounds of boroglyceride, the boroglycerides of calcium and of sodium. They are prepared by adding either borate of calcium or borate of sodium (borax) to glycerine, heating the mixture under constant stirring until a drop of the mixture placed on glass congeals to a colorless bead. The melted mass is then poured out on a metallic plate, and will form when cool, a transparent, glassy, brittle mass. The fragments must be put, while still hot, into a well-stoppered, dry bottle.

These compounds are easily soluble in water or alcohol, are without odor, unpleasant taste or poisonous effects, and can be used as antiseptic dressings to the most sensitive organs. Very little is yet known of their actual value, and a wide field is open for experiment. The boroglyceride of sodium is suggested as a remedy, whose effects it would be, perhaps, of value to determine. It is prepared by heating together, as above described, one hundred parts of anhydrous borax and one hundred and fifty parts of glycerine.—*Balt. Med. Chronicle*, Jan., 1883.

ACUTE CORYZA, or nasal catarrh, can be cured in a few hours, according to Dr. Ffealliott, if treatment is begun within the first twelve hours. His method is to spray the nostrils every hour or oftener, with a slightly acidulated solution of sulphate of quinia. Four grains of quinine, with just sufficient dilute sulphuric acid to dissolve it, is used to an ounce of water. It may be perfumed to the taste with any essential oil. Dr. F. supposes the effects of the quinine to be due to its antiparasitic action. The same treatment has been used with success for a number of years, on recommendation of Helmholtz, in hay fever.—*Balt. Med. Chronicle*, Jan., 1883

Sir James Paget, the eminent English surgeon, when near his country house recently, witnessed a severe accident by which a man's leg was broken. Sir James helped the man into his cart, and proceeded to attend to his injuries. The driver's companion ran to the local doctor, and cried out: "Please, sir, Bill has been and fallen out of the cart and got his leg broke;

there's an old cove a-pulling of him about, but I can see he ain't up to much, so I wants you to come at once, sir,'cos Bill's wery bad." The doctor hurried to the spot, and found that the "old cove" was quite competent to act in the emergency. Sir James had made some rough splints, and used a copy of the *London Times* to bind up the leg. Criticism of medical skill, as often happens, came to grief, and Sir James learned once more that fame has its limitations.—*Boston Med. and Surg. Journal*, Dec. 14, 1882.

Guiteau's Brain.—Dr. E. C. Spitzka, at a late meeting of the New York Neurological Society, of which he is President, stated that the specimens of Guiteau's brain which he had examined showed all the signs of disease described in the official report published in the *Medical News*. "He intimated that Dr. Dana's report in the *Medical Record* was 'fixed' to make it correspond with the editorial views expressed in that journal."—*Medical News*, Dec. 16, 1882.

Another Substitute for Cod Liver Oil.—Among the numerous substitutes for cod-liver oil which have from time to time been brought before the notice of the profession, dugong oil, which is an extract obtained from the dugong, an herbivorous cetacean inhabiting the warm seas of the coasts of Australia and the Eastern Archipelago, has met with a most favorable reception. Dugong oil is free from the unpleasant odor and taste which characterize cod-liver oil, and is much less liable to change in keeping. At ordinary temperatures it is opaque, from the separation of its more crystalline constituents, but becomes clear and almost colorless, when slightly warmed. The dose is the same as cod-liver oil.—*Medical Record*, November 4th, 1882.

Fibroma of Renal Capsules.—Dr. Hüe recently presented to the Société Anatomique, of Paris, a specimen of a tumor discovered post-mortem in the body of a woman who had died of pulmonary disease. Its presence had not been suspected during life. The tumor was ovoid in shape, of the size of a large nut, and was attached to the convex border of the right kidney by a pedicle which allowed considerable motion. On section, its texture was exactly like that of a uterine fibroid, composed of a mass of irregularly woven grayish white fibres. Its tissue was distinct from that of the cortex of the kidney. The capsule of the kidney was closely adherent to the tumor at its junction with the pedicle.—*Le Progrès Médical*, September 23, 1882.—*Medical Record*, December 16, 1882.

Amende Honorable.— The State of Missouri has the honor of having a quack resident who castrated a male patient, and afterwards made amends by taking his wife and living with her in open adultery.

Meteorological Summary—November.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temperature.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.083	76.5	77.0	East.	.....	Mean Barometer, ———.
2	30.145	76.3	77.7	N. E.	* .—	Highest Barometer, 30.675, 30th.
3	30 121	75 2	74.3	North	.....	Lowest Barometer. 29.732, 27th.
4	30.041	69.6	73.7	N. E.	....	Monthly Range of Barometer, .943.
5	30.042	68.3	69.0	East.	.....	Mean Temperature, ——.
6	30.103	68.1	62.7	S. E.	.....	Highest Temperature, 82.0, 1st, 3d.
7	30.208	68.4	71.7	East.	.....	Lowest Temperature, 36.8, 30th.
8	30.234	68.3	70.0	East.	....	Monthly range, ——
9	30.180	67.6	67.3	East.	.....	Greatest daily range of Temperature,
10	30.145	69.0	75.7	East.	.....	20.0, 16th.
11	30.115	73.2	74.7	S. E.	.....	Least daily range of Temperature,
12	30.078	73.7	79.0	West.	* .—	8.3, 24th.
13	30.186	58.0	66.3	North	.52	Mean of Maximum Temperature, 70.1.
14	30.289	51.7	49 3	N. E.	.....	Mean of Minimum Temperature, 56.0.
15	30.220	57.8	50.0	East.	.....	Mean daily range of Temperature, 14.1.
16	30.215	63.1	73.0	South	.....	Prevailing Direction of Wind, E.
17	30.199	66.8	78.7	S. E	.03	Total movement of wind, 5790 miles.
18	30.167	57.1	76.3	North	.01	Highest Velocity of Wind and Direc-
19	29.917	55.5	80.3	S. E·	.35	tion 28 S. E., 19th, 27th.
20	29.948	51.0	61.0	N. W.	* .—	Number of Clear Days, 11.
21	30.153	52.9	64.0	North	.....	Number of fair days, 11.
22	30.152	53.7	61.3	S. E.	.....	No. of cloudy days on which no rain fell, 1
23	30.152	63.9	68.3	S. E·	* .—	Total No. of days on which rain fell, 10
24	30.244	62 8	74.3	East.	.....	COMPARATIVE TEMPERATURE.
25	30.181	62.7	80.0	East.	....	1873..... 84.2 | 1878..... 83.5
26	29.994	67.8	85.0	South	.23	1874..... 83.9 | 1879..... 81.0
27	29.825	65.7	82.3	West.	.84	1875..... 79.3 | 1880..... 81.3
28	30 137	49.7	53.3	North	.....	1876..... 82.2 | 1881..... 82.8
29	30.368	45.3	50.3	N. W.	.....	1877..... 83.1 | 1882..... ....
30	30.606	44.6	46.7	N. W.	.....	COMPARATIVE PRECIPITATIONS. (Inches and Hundredths.)
Sums.	.....	....	....	.....	.....	1873..... 8.30 | 1878..... 5.31
Means	30.148	62.8	69.1	East.	0.660	1874..... 4.82 | 1879.....10.44
						1875..... 8.61 | 1880..... 4.60
						1876..... 4.44 | 1881..... 4.21
						1877..... 2.54 | 1882..... ....

*Inappreciable.

L. DUNNE, *Sgt., Sig. Corps, U. S. A.*

Mortality in New Orleans from November 11th. 1882 to December 9th, 1882, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
November 11	0	12	20	1	1	119
November 18	0	9	14	1	5	112
November 25	0	8	19	9	10	121
December 2	0	9	22	9	5	136
December 9	0	10	17	4	9	131
Total....	0	48	92	24	30	619

NEW ORLEANS
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ORIGINAL PAPERS.

Beriberi.

(Extracts from a paper read before the Orleans Parish Medical Society,)

By RUDOLPH MATAS, M. D.

Mr. President and Gentlemen:

In the year 1879, it was my good fortune to visit one of the recognized habitats of this disease, Cuba. There the frequent remarks I heard about me, both by professional and lay friends, to the effect that the disease was alarmingly diffused and fatal among the negroes and Chinese of the "ingenios," or plantations of the Island, incited me to seek a deeper knowledge of the literature of the subject and led, in a superficial way, to an actual introduction to this remarkable disorder. I have cautiously said, "in a superficial way," and rightly; for my practical knowledge of beriberi is limited purely to one case, and that a not well characterized instance, that was shown to me in one of the wards of the Civil Hospital of Havana.

However, I was favored by an opportunity to listen to an impressive recital of this malady's bedside history, from the lips of one of Cuba's most brilliant clinicians, the learned and lamented Dr. Serafin Gallardo, whose published lecture* upon beriberi is probably one of the most masterly and com-

*S. Gallardo, Lecciones dadas acerca del Beriberi, Cron.-Med.-Quirurg. de la Habana 1876, ii 477-514.

prehensive resumés of what is known about this singular malady that have emanated from the pen of a modern medical writer. Knowing only too well the total barreness of the usual text books, or the brief and unsatisfactory notice of this disease in some exceptional works, I devoted my leisure moments to the collection of what data I could find pertaining to its prevalence in Cuba and America generally, in order that some day I might, if possible, interest some of my confréres with a subject, which, if it prove as unknown to them as it did to me, when I first heard of this disease, cannot fail to prove interesting if it be only through its very novelty.

(NOTE.—In concluding these prefatory remarks I must acknowledge the invaluable assistance rendered by the writings of Gallardo, DaSilva Lima, Ferreira, Dumont, Gordon, and other writers from whom I have drawn very largely in the compilation of this brief sketch. The writings of Cuban, Spanish and Brazilian physicians have indeed added no meagre quantum to the existing knowledge of this affection.)

Etymology.—Before proceeding with a general account of this disease it may be a matter of some interest, particularly to those addicted to philological studies, to stop for one moment to consider the origin of this non-scholastic term, beriberi. This part of our subject has, unfortunately, proved a genuine crux to the student, as the contradictory and confusing opinions emitted by various writers have succeeded only in entangling the question, so that it may be still regarded as awaiting solution. However, some of the most prominent opinions will be cited so that the society may better judge of the difficulties in question. It appears, that the writer who first made use of the word beriberi was Jacob Bontius who, in 1745, writing upon the diseases of India, ascribed the origin of the word to the Hindoo term "bhayree," a lamb, on account of the supposed resemblance between the gait of this ruminant and a beriberic patient, a comparison which the experienced Dr. Gallardo, of Havana, considers as distant as it is imaginary. Dr. Malcolmson, quoted by Fonsagrives and Le Roy de Mericourt, states that in Ceylon the word "bhayree" or "beri" signifies debility or weakness, and that the repetition of these terms means a greater degree of prostration

or weakness, an interpretation which coincides with the paralytic form of this disease. Dr. Herklots, another writer (quoted by Malcolmson, Essay on Beriberi), remarks that in the Hindoo dictionary the word "bharbari" is found, which signifies oedema or swelling. This word, with some orthographical modifications, might be made to resemble the word beriberi, a corruption which would satisfactorily adapt it to the most prominent symptoms of this disease, anasarca. Other opinions, such as Carter's, Aitkin's and other Indian authorities, still in more positive conflict with each other, could be cited, but it is useless to detain you before a question of such little importance, though it may be well, before terminating this subject, to state that beriberi has not been the only word which has served to designate this disease. Kakké, in Japan, "pandjakit niloe" in the Island of Banka, and "pandjakit papoea" by the inhabitants of New Guinea (Gallardo) are prominent among its barbarous synonyms; whilst hydrops asthmaticus (Rogers) and "scorbutic tropical myelopathy" (G. van O. Meijer) may be regarded as its more scientific, though less classical appellations. These latter terms have, notwithstanding their scholastic recommendation, remained entirely restricted in use, to their progenitors; and justly so, for they are as defective as the rest in their definite qualification of the disease they are intended to designate.

Clinical Classification of Beriberi.—Among the many multiple and complex divisions given by clinical writers on beriberi, none seem to us more acceptable than that established by Da Silva Lima, a distinguished Brazilian writer*, whose great experience with this disease fully entitles him to the right of founding an authoritative classification of its clinical forms. He believes that beriberi usually exhibits itself in either (1) a paralytic form, (2) a dropsical, (3) a mixed form. This division has been accepted by Le Roy de Mericourt, and by Dr. Gallardo, though the latter states that he has not yet been able to see a pure unmixed case of the dropsical form of beriberi, and that, in his opinion, no case of genuine beriberi can well exist without some neurotic complication.

* DaSilva Lima.
Ensaio sobre i beriberi no Brazil, Bahia.

In order to present, in the shortest space, a comprehensive sketch of the disease as it usually manifests itself, I will limit myself to a description of its chief mode of prevalence in Cuba —the mixed form.

Clinical History.—Almost all Cuban observers agree in asserting that a more or less marked debility of the inferior extremities is one of the earliest manifestations of this disease: "the patients feel a flaccidity and lack of power over their legs which does not permit them to execute the ordinary movements of progression with the customary precision and energy. In some cases a lack of flexibility, or rigidity about the knees, and shooting pains and cramps in the lower extremities, are frequently quite noticeable. These symptoms may go on gradually, or rapidly increasing; walking may become difficult, and the feet, in attempting to do so, separate instinctively from each other (in order to augment the base of sustentation). In progression, one foot is advanced laboriously from the ground and thrown slowly forward, and no matter how slight the intensity of the disorder, the patient grasps the nearest objects in order to gain support, so great is the fear of falling. If the patient is asked to turn around he does so with difficulty and would fall if not assisted. This condition may grow so much worse that it may prevent the patient from assuming the erect posture; the knees, in attempting to do so, frequently yielding suddenly under him and throwing him down before any assistance can be rendered." Associated with this deranged motility or paretic weakness, a diminution in the tactile sensibility of the lower extremeties, greatly simulating locomotor ataxia, has been frequently observed. In other instances formication, tingling and analgesia have been noticed (Dumont). Again, at times, an intense hyperæsthesia may show itself, and cause such extreme tenderness of the affected parts that the patient will cry at the sligtest touch.

The patients usually complain of great epigastric tenderness, and not infrequently of a supra-sternal pain, which is occasionally so intense "that they frequently beg for a knife to thrust into the painful spot, in the hope that they may thus be relieved." Pains over the precordia simulating angina pec-

toris, also, frequently torture the poor sufferers. Dyspnœa, in the earlier stages, attributed to the paresis or adynamy of the respiratory muscles by Gallardo, is a most marked and prominent symptom of the disease. The facies becomes notably altered, particularly if the thoracic symptoms are present The afflicted patient has a gloomy, downcast look; he is quite pale from incipient anæmia, and the observer is at once impressed by the langour and debility so markedly recognizable in the whole appearance of the patient.

After a more or less variable period from the first appearance of these symptoms, or coincidently with their development, the anæmic state begins to demonstrate its presence more forcibly in the economy; the pallor increases; languidness and a tendency to somnolence cause the patient to sit in silence and indifference about the quietest corners of the infirmary. About the same time the most important symptom of beriberi makes its appearance,—œdema. It usually shows itself by a slight infiltration about the malleoli, which rapidly swells the leg up to the knee; it happens, in some cases, that after resting at this point for a short time, may be a few hours, it rapidly ascends and progressively invades the trunk, upper extremities, face, and in fact, the whole body. The splanchnic cavities rapidly fill to tightness, even parenchymatous œdemata of most of the viscera occur. These visceral infiltrations do not take place, however, until the subcutaneous tissues have been decidedly involved. (Dumont.) We now find that, to a preexisting feebleness of the respiratory muscles, a rapid outpowering of serum into the pleural cavities or an equally grave effusion in the pulmonary parenchyma is superadded. Necessarily, a dyspnœa of the most desperate character soon follows: the respiratory acts become greatly accelerated; signs of diminished blood aeration become general; the facies assume a most anxious expression; the lips and mucous membranes become livid and dusky; and the nares, dilated to their utmost capacity, indicate most painfully the compromised state of the respiratory function and impending danger of death from apnœa. This state, if not promptly relieved, rapidly culminates in a delirious orthopnœa and death.

In other cases, in which nothing but dropsical effusions are at the bottom of the dyspnœa, the function of hematosis is not so eminently endangered. But another complication, equally formidable, may come into play about the same time, and not infrequently speedily kill the patient. I refer to hydropericardium, which occurs, at times, so quickly that the heart fails in syncope.

When either of these unfortunate terminations do not suddenly cut short the career of a case, the patient has to prepare himself for a long struggle with an anæmia that every day becomes more and more formidable; indeed, this deplorable condition becomes as high-pitched in beriberi as in the most oligohœmic state. It is manifested by an intense pallor of the skin in the Chinese, and a loss of lustre in that of the negroes; the conjunctivae and mucous membranes become pale and exsanguinated; loud venous hums—*bruits du diable*—are heard over the jugulars, and musical murmurs are distinctly audible over the great basic trunks of the arterial system. With this progressive anæmia, the heart beats, at times, very irregularly and, more frequently, forcibly and tumultously, giving rise to distressing palpitations which, subjectively, awake the most serious apprehensions.

Anorexia, mental dejection, listlenssess and obstinate constipation seem to be the rule in this stage, and in fact throughout the course of the malady. Vomiting, a disagreeable and prostrating symptom in India, does not seem to enter so prominently in the history of this disease in Cuba.

The urine is of a decidedly acid reaction, charged with urates, but otherwise free from any of those abnormalities that would justify a suspicion of renal disease.

The temperature is, as a rule, normal in beriberi, though Aitken and Malcolmson state that vesperal and matutinal elevations of temperature have been observed.

The clinical career of beriberi is marked by the most notable irregularities; a fact which renders difficult its division into different stadia. The dropsical form is particularly characterized by these irregularities. The anasarca may alternately appear and disappear with astonishing facility and without

assignable cause. At other times the march of this affection is continuous and progressive; a distinguishing characteristic of the nervous type of beriberi. In its intensely pernicious forms, beriberi may destroy its victim in the short period of twenty-four hours, and in other cases it has been known to run its whole course in less than six hours!

The average duration of the acute forms is, according to Dumont, fifteen days. The more beningn type usually runs a slower course and it is not uncommon for one month to elapse before recovery is fully established.

The disease seems to prevail with greater malignancy at times than at others. The mortality is greater when a great number of individuals are attacked at the same time, especially when they are surrounded by insanitary conditions. When the disease prevails sporadically, its average mortality has been calculated at 35 per cent. in India (?) by Rochard. On an average it has not occasioned so serious a death rate in Cuba; whilst, in some epidemics on board emigrant ships, in the Indian seas. its death rate has even exceeded this percentage.*

In summing up the prominent features that especially distinguish the bedside history of beriberi, we will only point out the most constant and unfailing symptoms: the nervous disturbances, anaemia and anasarca, which, as a rule, exist conjointly when the disease reaches its critical and culminating point; and furthermore, as differentiating this disorder from all others, we only need notice that these grave symptoms are all present without the slightest clue to an organic lesion that might casually explain this disease's remarkably expressive physiognomy. At no time, and this is the dictum of all competent observers, can the diagnostician find either in the heart, liver or kidneys, the slightest alteration of aetiological value; none but functional, flitting murmurs are distinguishable about the circulatory centers; the liver upon percussion and auscultation is normal, and its functions, both subjectively and objectively, are carried on as usual; finally the kidneys also

* Dr. DaSilva Lima, of Bahia, Brazil, reported that in the nine years from 1863 to 1871, inclusive, he had treated 112 cases, and of these 69 had died! (Taken from MS. report of M. Reynaud, of Bahia, to French Minister of Foreign Relations.)

give no evidence, through the state of their secretion, of any structural abnormalities, as no albumen or casts, ever seem to be present in the urine of beriberic patients.

Pathological Anatomy.—After this cursory glance at the clinical tableau, we are prepared to enter the dead-house where a hasty glimpse at the cadaver will at once inform us of the inability of the anatomist to teach anything beyond that which as clinicians, we were led to suspect in the sick room. In fact, the pathological anatomy of beriberi is purely negative in its results. Here and there we find in the literature of this disease that some remarkable alterations in important organs have been discovered, but it is almost the unanimous opinion of the most authoritative writers that the microscopical data are only, and simply, confirmatory of the symptomatic revelations; and that, as regards the elucidation of its pathogenisis, they leave it unsolved and problematical. It is true that in this study the autopsies have not been complete because, so far, only the gross appearances have been dealt with; the minute and subtle methods of modern scientific research have not yet, to my knowledge, been fully applied in this important inquiry, so that the investigation can hardly be regarded as terminated; in fact, we are inclined to believe that the discovery of a vast deal of hidden knowledge awaits the future microscopist, whose labors, in this direction, if not ultimately unraveling the mystery that enshrouds the beriberi pathology will, at least, greatly extend our positive knowledge of this disorder. No where do we find the need of the microscope more clearly indicated than in the study of the nervous lesions; the attempts made to determine their character by the microscopic appearances only rendering this part of our study more confusing. Thus, a marked hyperaemia of the spinal meninges seems to have been the most constant lesion with some, according to others (Gebel, Walther and Boujean) the spinal cord, including both medullary and grey substances, seems to have revealed the greatest hyperæmia. The same authorities claim that in some instances sclerosis, whilst in others, the opposite condition, softening, was more often the chief lesion (Boujean.) The blood of beriberic patients has been

subjected to numerous analyses both chemical and microscopical, at various epochs; among these we might cite the later examinations made by Dr. Gorden, of Havana, in 1871, and by Dr. Hebersmith, in 1881, at San Francisco. The first observer discovered a marked diminution in the number of the red corpuscles with a decided leucocythemic increase of the white cells, (in one case the proportion between the red and white globules being from 1:12). The increased formation of the white cells is interesting, particularly when, according to Dumont, a general adenopathic enlargement of the lymphatics is commonly noticeable in beriberi, though this author does not ascribe to it the importance that apparently might be attached to such a lesion where studied in conjunction with the alterations in the morphological constitution of the blood.

"Dr. Hebersmith in the report of the cases occurring in the U. S. Marine Hospital, at San Francisco, asserts that the primary changes are in the red globules which are more or less disintegrated and destroyed."

Dr. Simmonds, the able observer of this disease, in Japan, expresses the opinion that beriberi is primarily a nosohœmic affection, and also corroborates the microscopic revelations just alluded to.

Before dismissing this part of our subject, it is deserving of notice, without attempting to invade the domain of pathological speculation, to state that the most generally accepted *opinion* among the most authoritative modern writers upon this disease (Da Silva Lima, Ferreira Santo, Gallerdo, Simonds, Hebersmith, etc.), that it is a miasmatic affection, very much akin to malarial intoxication, and like it probably dependent upon a germ, a micro-organism for its causation.

General topography of this disease, its probable origin on this continent traceable to importation by the Chinese, mainly, and to other Asiatic immigrants.—"The English were the first to describe beriberi, and the territorial limits which they assigned to it were not very extensive according to them, it embraced only the Western coast of the Gulf of Bengal, from Gunjam (19° 22' N. lat.) to

Madras (13° 4' N.), and the Island of Ceylon, where it afflicted with special severity the towns of Columbo and Trinquemalee

Notwithstanding the comparatively short time that elapsed since these notes 1, 2, quoted from M. Reynaud, in his "Rapport sur le beriberi," addressed to his Excellence the Minister of Public Instruction, of France. In Bahia, Brazil, October, 1872, boundaries were first recorded, numerous reports soon followed which demonstrated the prevalence of beriberi in many localities quite distant from those just given. Fensaggrives and Mericourt wrote, in 1861, that beriberi was exclusively a disease of the Indian Seas, by which they assigned to it a much broader domain than that first traced by the English; though the Dutch and English themselves, soon followed (1864) with another assertion that still gave greater magnitude to the zone of beriberi infection; they stated that this belt extended from its Nothern extremities, China and Japan, to the Island of Bourbon (last coast of Africa, 21° S. lat.), as its Southern limit; and from the Red Sea, on the West, to the Island of New Guinea, which is situated almost in the midst of the Oceanican Archipelago." About this time, or shorly after, the French had an opportunity to study this disease in their possessions, in our Hemisphere. A brief notice of a remarkable epidemic that occurred in 1861, on board the emigrant ship "Parmentier" will guide us in the study of one of the first sources of importation of beriberi to America. About the year 1854, the French Government contracted several hundred Hindoo Coolies, from Pondicherry (French India), to serve in Martinique; at the expiration of their engagement, seven years after (October 10th, 1861), they were sent home on board the "Parmentier." After five months navigation (May 10th, 1862), they reached their destination, though in a most deplorable condition; for, during their long voyage, 258 out of 401 passengers had perished. The scientific body specially commissioned by the French Government to enquire into the cause of this fearful mortality recognized in Beriberi the chief malefactor. Now, the question arises, how did this disease develop on board; was it born spontaneously on the seas, as a result of insanitary condition, as is believed by Mericourt and the

Commissioners? Or, is it not more logical to suppose that the coolies, in leaving Pondicherry, one of the hot-beds of the disease, took some of the beriberic poison with them to the Martinique, where it probably prevailed in a sporadic form, though unrecognized as such by the practitioners of that island, and was taken back by the same people to their native land; the disease assuming epidemic proportions as it gained greater virulency by the propitious circumstances in which it was placed? This is the opinion of Gallerdo, and it also appears to me the most rational view, particularly when we consider that Beriberi was very shortly after recognised, as such, in the Martinique, where it furnished a large quantity of material to its French nosographers.

Mericourt also states that the medical officers charged with the inspection of the emigrant craft from the coast of Africa to Cayenne, have reported the existence of *spontaneous anasarca* among the negroes under their surveillance. Now, if we admit Dr. Mericourt's suspicion that this anasarcous disease is no other than beriberi, are we also to admit its spontaneous origin on board the ships? It is not much more plausible and sensible to regard it, as Gallerdo suggests, as the outcome of infection derived from endemic centers; particularly when we discover that these negroes were brought originally from the *Eastern Coast of Africa*, which is almost in constant traffic with Madagascar, Mauritius and Bourbon, three noted foci of the beriberi poison?

In Cuba, the evidence in favor of the importation of this disease by the Chinese, is so strong that I will hardly detain the society with any detailed presentation of facts; this work has been done so ably by Dr. Gallerdo that now nothing is left to me but to present to you the more general conclusions that I have gathered from his lecture. It is quite possible that Beriberi accompanied the Chinese in their earlier expeditions to Cuba, in 1847. There can hardly be a doubt that this disease proved very destructive to these people in 1853, when 300 of them came from Macao to that island, though the affection was not then diagnosticated or at all differentiated from other maladies. Decided evidence in favor of its prevalence

on board the emigrant ships that followed, continued to accumulate, though it was not until 1859, when becoming generalized, it created alarm and was distinguished as an unknown though independent morbid entity. In fact, that year, the disease following the footsteps of the Chinese throughout the island began to attack the negroes of the plantations who, it must be said, never suffered before the coming of the orientals with any such pest. After this date, it became permanently engrafted in the soil of Cuba, where it prevailed almost exclusively in the plantations, a fact which explains the familiar and significant designation, "the disease of the" ingenios "or sugar houses."

It was reserved to Dr. Juan G. Hava,* now of our city, to direct, for the first time (August 1865), in a note addressed to the Academy of Science of Havana, the attention of the profession of that island to the remarkable relations existing between the "swelling of the Chinese and negroes of Cuba," and the beriberi of Asia; in fact, he boldly declared that disease to be beriberi, an opinion which, though at first contested by Dr. Dumont, "received a wise confirmation by the professors of the University of Havana, who were subsequently commissioned to investigate the disease when it prevailed fatally among the coolies employed in constructing the great aqueduct at Vento."

About this time, 1865, according to the data furnished by Prof. Alvez Cardoso Silva,† the Brazilians were first startled by this fearful apparition which soon overran some of the most populous provinces of the Empire. It first afflicted the provinces of Bahia and Matto Grosso, where, during the bloody war between Paraguay and Brazil, it lent its horrors, till then unknown, to the other pests of war; it attacked the army, at that time, with fearful violence, and if we are to believe the account of an officer‡ who served during that campaign, it not

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*1. Vide Annales de la R. Academia de Ciencias de la Habana, September Number.

†These facts were mainly gathered from the MMS. Report of Mr. Reynaud, the French Consul at Bahia, Brazil, to his government (1872).

‡M. De Eseragnolles. "La Retraite de Laguna," 1871.

only proved fatal among the military, but also prevailed as an epizootic, greatly embarrassing the movements of the army through the lack of horses and other beasts of burden. Subsequently, the provinces of Sergipe, Alagoas, Maranhao, Para, and, in 1871, Pernambuco, were visited by the new malady, which finding in that territory a favorable habitat, has permanently engrafted itself as one of the endemic diseases of the Brazilian Empire.

The importation of this disease into Brazil is also attributed by Gallerdo to the Chinese, as the time of its appearance there, according to this writer, seems to coincide with the date of their immigration.

Finally, we were startled in 1880, when we heard that the Vital d'Oliveira, a Brazilian war vessel, had landed part of her crew, sick with this disease, at San Francisco. This was the first time, apparently, that beriberi visited our country and, fortunately, it does not seem to have fixed itself permanently upon our soil, though, we confess that after studying the rapid manner in which it followed in the wake of increasing maritime relations, between this hemisphere and its originally infected force, we could not but fear its being implanted in the Union, particularly in the Western States, which are so richly supplied with its favorite pabulum—the Chinese.

The Therapeutics of Arsenic.

By I. L. CRAWCOUR, M. D.

Read before the N. O. Med. and Surg. Association, Dec. 9th, 1882.

About thirty years ago, a work appeared, of which some chapters excited great astonishment and much adverse comment. I allude to Johnstone's Chemistry of Common Life, a book with all the fascinations of a novel, and all the realities of a scientific essay. It was read with eagerness by young and old, learned and unlearned, and for the first time in English literature appeared the startling statement that one of our most deadly poisons, arsenic, was in common and daily use by the peasants of Carniola and Styria, as a condiment and stimulant. This, vehemently denied by many, was at length

proved to be a fact; and Dr. McLagan of Glasgow, in order to satisfy himself, weighed out what was said to be the daily portion of a mountaineer, namely ten grains of solid arsenic, and made him eat it in his presence. In order to be certain that no antidote could be used, he kept the man in his company for several hours, and finally examined the urine, in which he distinctly found arsenic, thus proving beyond a doubt its absorption.

Previous to this, Dr. Lorenz and Dr. Arbele of Saltzburg, had stated the same thing from their own personal experience. We may ask what is the effect on the system of this use of arsenic? The peasants of the country say it improves the breathing and gives longness of wind, so that steep and continuous heights may be climbed without difficulty and exhaustion of breath. At the same time it gives plumpness to the figure, cleanness and softness to the skin, beauty and freshness to the complexion.

Trousseau, in his classical work on therapeutics, says: "en ce qui nous concerne, l'acide arsenieux pris en santé a la dose de 8 centi-grammes (1¼ grains) nous a causé une excitation génerale, comparable a celle qui produit le café tres fort. Mais le phénomène le plus curieux a été le production d'une vigueur insolite des extremités inferieures, permettant de faire de longues courses sans fatigue."

We learn from this that arsenic is a tonic, a stimulant, and exercises a powerful influence over the respiratory function.

In the *British Medical Journal* of August 28th, 1850, Dr. Trende reports the case of a young woman who, for three months, had been taking about two grains of arsenic twice daily, for the purpose of producing abortion. In her case the drug thus long continued, produced partial paralysis, from which, however, she ultimately recovered.

I simply mention these cases to show that we may dismiss from our minds the bug bear which seems to surround arsenic with fear and trembling, and that we may give it with safety in full and repeated doses. We give strychnia, a much more deadly poison, as a common remedy! Why should we be so fearful of arsenic?

By investigating the toxic effect of arsenic, we may perhaps be able to predict, with an approach to some degree of certainty, what its medical properties might be from the elective affinity it has for certain organs.

It is found after death in the brain, liver, spleen, kidneys, lungs, heart, bones and stomach. It has its specific effect on the stomach, even when applied externally, and Popoff finds that long continued in poisonous doses, it causes peculiar alterations in the spinal cord, which may manifest themselves as an acute myelitis, and in some instances as a diffuse inflammation of the white substance. When paralysis arises from arsenic it is usually of central origin.

From these toxic effects we may assume (what experience has confirmed), that arsenic should be useful in diseases of the stomach and nervous system.

We may now pass in review, seriatim, the various diseases in which arsenic has been found beneficial.

It is certainly the *facile princeps*, in cutaneous diseases, for, according to the experience of Mr. Thos. Hunt, it never fails to cure all skin diseases of a non-syphilitic type, if properly administered. For this purpose, Mr. Hunt recommends its use, in small doses, gradually diminished instead of being increased, and employed for a very long period of time, even for years if necessary. He says in his classical work on diseases of the skin, "I venture to hazard the opinion that arsenic will one day be universally esteemed as one of the most valuable of medicines, and that its administration will be attended with far less danger than mercury, antimony, opium or any other poison now used medicinally."

Mr. Jonathan Hutchison, in some papers recently published, finds it curative in the most inveterate cases of pemphigus, and my own experience, although of course comparatively limited, leads me to agree with Mr. Hunt that arsenic properly, judiciously and fearlessly administered, will cure every non-syphilitic cutaneous disease.

Closely allied to diseases of the skin are disorders of the stomach, and we shall find that arsenic, in very minute doses, is by far the best remedy we can use in that form of irritative

dyspepsia, characterised by a red tongue with prominent papillæ, in gastric pain, and in the vomiting and pain due to chronic ulcer of the stomach. In these cases one minim of Fowler's solution, or the fiftieth or hundredth of a grain of solid arsenic will work wonders. I remember a case of chronic dyspepsia of ten years standing, which I cured some years ago, by the persistent use of arsenious acid in doses of the 1.100 of a grain, repeated three times daily, just before meals. I had an opportunity of watching the patient for several years, during which time the disease did not re-appear.

One remarkable property of arsenic is to diminish the excretion of carbonic acid from the lungs, and thus economize waste of tissue. In this we find an explanation of its almost marvellous effects in diseases of the respiratory organs. If there be any cure for asthma, it is in this agent. In this disease it must be given in large doses, and I have the report of a case in which ⅓ of a grain was given night and morning for a considerable time, and with marked benefit. Dr. Martelle, in a recent number of the London *Practitioner*, reports a case of inveterate asthma cured by the hypodermic employment of Fowler's solution. After two drachms had been used in this way the disease completely disappeared.

I can report as favorably as to its exhibition in phthisis pulmonalis, and I would as soon think of abandoning cod liver oil as to leave arsenic out of my prescription. I can speak positively on this point, and am satisfied I have seen most remarkable results when arsenic has been given judiciously. It is impossible to lay down exact rules for its administration in this disease, but inasmuch as it has to be given for a long time and continuously for its tonic and alterative effects, it should be used in small doses, say the one-hundredth of a grain three or four times daily. It is best given with the food. All of you are familiar with its effects in malarial fevers, in fact, it is questionable, whether as a curative agent, if it be not superior to quinine. My usual custom is to break the paroxysm with quinine and then to complete the cure with arsenic. For this it must be given in comparatively large doses, namely from the twenty-fourth to the twelfth of a grain,

or even more. Dr. Boudin, of Paris, reports 4,000 cases of every form of malarial disease cured by it without a single failure. For children it is unrivalled, and I think the successes of the self-styled homœopaths are due to their tasteless arsenical globules (not given, however, in infinitesimal doses), while children almost invariably reject our nauseous quinine.

There are three diseases, hitherto considered incurable, which of late have been cured by arsenic. These are pellagra, Addison's disease, and lymphœmia. In the *British Medical Journal*, of March 11th, 1882, Dr. Lambroso has reported cures in desperate cases of pellagra by arsenic, in doses of $\frac{1}{4}$ to $\frac{2}{3}$ of a millegramme. In the localities in which pellagra is endemic, medication by arsenic and chloride of sodium has been tried on a large scale, and the successful results have been sufficiently numerous and rapid, to give reason to hope, that it may be possible to cure pellagra, without attempting the almost impossible task of changing the diet of the population among whom it prevails.

Of late several cases of pernicious anæmia and Addison's disease have been reported as having been cured by arsenic, and Billroth, in his surgical clinic, reports six cases of lymphomata, in which he says arsenic was employed with remarkable success. In one case reported, the treatment lasted fifty-three days. The patient commenced with Fowler's solution in the doses of five drops daily, gradually increasing it to forty, equivalent to one-third of a grain of arsenic. In other cases reported it was used both internally and hypodermically, 3 to 9 minims being employed by the latter method.

The influence of arsenic on nutrition were well shewn by some experiments on animals by Professor Gies. He fed pigs, rabbits and fowls on foods containing minute quantities of arsenic. In all of them, the body weight was greatly increased and the subcutaneous fat largely augmented. Another remarkable circumstance, was, that animals kept in the same stable also developed considerably, this being due to the fact that the air in the stables was charged with arsenic from the food.

One singular thing was, that the young of animals fed with arsenical food, were invariably born dead; they, however, all attained a large size, and in most the spleen was remarkably hypertrophied.

Next to phthisis, and other diseases of the respiratory organs, uterine troubles are those in which I have found the most benefit from arsenic. In many of the maladies in which the uterus plays the chief part, whether actually or sympathetically, we shall find that congestion is a prominent symptom, it is probable also that the rheumatic element may also lend a helping hand. In all of these, whether there be an imperfect or excessive discharge of the catamenial function, whether we have dysmenorrhœa, amenorrhœa, or menorrhagia, we shall find in arsenic one of our chief therapeutic agents, always premising that these disorders do not depend on any organic or obstructive lesion. In most of these cases I combine the arsenic with the bichloride of mercury, and I can say with truth that I have rarely been disappointed with the conjoined action of these remedies. In gout, rheumatism, and in the various neuralgias (and we shall find that most of the neuralgic affections are connected with these diatheses), we shall find in arsenic one of our most potent agents. We can well understand why this should be, as we find from some late experiments by Schultz, that arsenic acts both as an oxidising and deoxidising agent.

This observer found, that if a solution of arsenious acid be exposed to the air, and therefore to the contact of organic matter, the fluid which originally contained only arsenious acid will now contain acid arsenical salts, an oxidation having taken place, one atom of oxygen having combined with the arsenious acid. Another property, which we have learned from the employment of arsenic in dyeing, is that it gives off part of its oxygen to reducing bodies, so that arsenic acid is reduced to arsenious acid. With a small amount of arsenic we can thus get two conditions, one in which the arsenic is easily oxydised, the other in which it readily reduces itself, this taking place very rapidly in the presence of protoplasm. It is, perhaps, to this remarkable property that all the therapeutic

effects of arsenic are due, another example of the benefits the art of medicine derives from the conjoined study of all its branches, chemistry aiding physiology, and physiology lending a helping hand to therapeutics.

Arsenic has been found useful in many forms of cardiac disease, especially those characterized by fatty degeneration, or mitral obstruction. In all these it acts as a cardiac stimulant, diminishing palpitation and relieving dypsnœa.

In albuminuria depending on Bright's disease, it will always be found of service, and I am sure I have derived benefit from it in diabetes. It is probable that both these diseases are, in in their origin, dependent on some lesion of the nervous system, as both conditions may be induced by irritating contiguous tracts at the base of the brain.

In chorea, a disease closely allied to the rheumatoid diathesis, arsenic is by many, considered the best remedy. Personally I have no knowledge of its use in this disease, having always succeeded with sulphate of zinc and electricity. Sidney Ringer however, considers arsenic the best remedy and recommends its use in large doses.

Arsenic has long been used in India as a remedy for snake bites, the celebrated Tanjore pill being composed mainly of arsenic and black pepper. Many years ago, while still a student at Guy's Hospital, the analogy between the effects of the bites of venomous snakes, and many of the symptoms of cholera suggested to me the possibility of arsenic being a useful remedy in this disease. In 1857, Dr. Black employed it with great success, several cases of cure being reported in the *London Lancet* of that year. In the *Practitioner* of 1872, will be found a remarkable case, showing the surprising effect of Fowler's solution, even when given in the stage of collapse. The case is as follows:

John Powell, aged 33, was suddenly seized with vomiting and purging, the dejections were rice water and not feculent. The eyes were sunken and the eyelids of a blue leaden appearance, the voice was reduced to a whisper and the cramps were incessant and violent. He was ordered six minims of liquor arsenicalis after each vomiting. The first and second doses

were rejected, but the third remained. The vomiting and purging ceased entirely. After the fifth dose, the voice returned. The medicine was afterwards given at gradually increasing intervals, the dose each time being diminished until all of the mixture was taken. There were no injurious effects from the arsenic and no secondary symptoms.

Guided by this, Dr. Ernest Guisan of Berne, believes that as in cholera, rabies may depend upon a contagious germ, this being formed by one of the lowest fungi. The period of incubation extends on the average from five to six weeks.

The poison is then absorbed, spreads through the body, multiplies indifinitely, producing ultimately irritation of the nervous centres, especially of the medulla. Dr. Guisan recommends arsenic as a prophylactic and gives several cases, where benefit resulted. Among others, one in which a rabid dog bit thirteen persons in the Canton of Freiburg, all were recommended to be treated with arsenic, morning and evening, as a preventive. Eight submitted to this, and of these none were affected, four declined, of these, two remained unaffected, and two died of hydrophobia.

Dr. Guisan not only recommends the internal use of arsenic, but the dressing of the wound with it. Among the many mineral springs which are reputed to be beneficial in disease, we find those containing arsenic in notable quantities enjoy the largest reputation. The celebrated waters of Vichy contain arsenic in large proportion. Those of St. Etienne contain in 17.50 of solids, 0.83 of arseniate of soda. Those of La Bourboule contain three-fifths of a grain of arseniate of soda to the quart. These waters are recommended as curative in scrofula, asthma, chronic bronchitis, whooping cough, loss of appetite, gastralgia, constipation, dyspepsia, anaemia, chlorosis, muscular debility, chorea, neuralgia, diabetes, chronic gout, rheumatism, cutaneous diseases, and are said to be specific in sea-sickness.

From this (and I copy from the certificates of the physicians attached to the springs) we see the wide curative range they enjoy, and nearly all the benefit is due to the arsenic they contain.

In surgery, as an external application, arsenic also has a wide range of usefulness. For external use it must be employed in a concentrated form so as to prevent absorbption. Used in this way it is perfectly safe. In cancer, and more especially in the epithelial form. it has been by some regarded as a specific, the best formula is that of Alexander Marsden, published in his work on cancer. He recommends a thick paste to be made of two drachms of arsenious acid and one drachm of mucilage of acacia well mixed together. A surface of the cancer not exceeding a square inch is to be spread with this, a piece of dry lint is then to be pressed on the part overlapping the paste half an inch all round; the extra lint is then to be cut away with a pair of sharp scissors, and the rest allowed to adhere. At the end of two or three days, poultices are to be constantly applied, and after a time the slough separates, leaving healthy tissue beneath.

Dr. Marsden reports several cases, both in private and hospital practice, cured by this method, and his work on this subject will well repay careful perusal.

It is, however, in the diseases of children that I consider arsenic can achieve the most good.

I have already alluded to its employment in malarial fever, but its uses are truly multifarious.

In diarrhœa, especially the diarrhœa of dentition, in dysentery, cholera infantum, it will be found invaluable, and as a tonic, I do not think any remedy in the pharmacopœa can compare with it.

It is especially valuable for scrofulous children, and it is recommended to all for its tastlessness, small dose, and the ease with which it may be given in almost any kind of food.

If a law were passed, compelling physicians to confine themselves to two remedies only in their entire practice, arsenic would be my choice for one, opium for the other. With these two I believe one could do more than with any two of the pharmacopœa.

Now, with regard to the methods of administering arsenic, my predilection is in favor of the solid arsenious acid, and I

feel convinced from long and careful experience, that there is as much difference between this and its various salts, as between iodine and iodide of potassium, or bromine and the bromides. I am positive, arsenious acid is better tolerated and can be employed for a longer period and in larger doses than any of its salts.

I usually give it either as a powder triturated with sugar of milk, or in the form of a tablet, and always recommend that it be allowed to dissolve slowly in the mouth. My usual dose is the one-hundredth, or the fiftieth of a grain at the beginning, gradually increased; in this way I have carried it to the eighth of a grain three times daily.

It is well to remember in case we wish to give it in solution, that water will dissolve varying quantities of arsenic, according to the mode of preparation.

Thus, cold water allowed to stand on arsenious acid and frequently shaken, will dissolve about half a grain to the ounce. Hot water, cooling from 212°, will dissolve about 1-400 of its weight, or about 1¼ grains to the ounce. Water boiled for an hour on arsenic, and allowed to cool slowly, will dissolve and *hold* in solution about one-fortieth of its weight, or about 12 grains to the ounce, equalling a grain and a half to the drachm. This, it will hold indefinitely. I have solutions which I made fifteen years ago, and there is no precipitation. This is a very convenient form for internal use, as it can be given largely diluted and in any liquid, one minim being equivalent to the fortieth of a grain.

The pharmacopœal preparations are the liquor potassæ arsenitis containing one part in one hundred and twenty, or five minims contain 1-24 of a grain. The liquor sodæ arseniatis is of the same strength, the latter being very convenient for hypodermic use. The liquor arsenici hydrochlorici is very convenient in many cases where we wish to administer the remedy with iron, its combination with the muriated tincture being one of the best hœmatics. The liquor arsenici et hydragyri iodidii contains 1-12 of a grain of arsenic to the drachm, and is a most valuable alterative. The iodide of arsenic will also be found very useful in many forms of stru-

mous disease, one grain contains 1-30 of a grain of arsenic. For my own part, I rarely give these combinations, preferring the arsenic by itself, and giving the other medicines, when required, separately as I can then dose more accurately my prescription.

I must apologize for detaining you so long, but the therapeutics of arsenic is so vast a subject that I have found it difficult to condense what I have to say, and I feel even now that I have done but scant justice to so important a theme.

[NOTE.—Since the above was written, I find that Dr. Grunmach, of Berlin, treats goitre by arsenical injections thrown into the parenchyma of the enlarged thyroid. The injection consists of one part of liquor potassæ arsenitis and three of water, this was used three times a week. The average number of sittings was ten or fifteen. One hundred cases were treated. The effect was to diminish the tumour all around, and to remove the obstruction to the breathing.

TRANSLATIONS.

CLINICAL REVIEW.

TREATMENT OF VARICOSE ULCERS OF THE LEG BY LEVIGATED SUB NITRATE OF BISMUTH.

(Translated for N. O. Med. and Surg. Journal, by D. C. HOLLIDAY, M. D.)

It was not my intention to make this report to-day, wishing before doing so, to carefully record the result of a large number of cases treated by this method.

Having already treated *twenty* cases *successfully*, with the sub nitrate of bismuth, I have only carefully written out the last. This is, however, a typical and conclusive case. I think this case will show conclusively the efficacy of this remedy in certain ulcers, especially in those of varicose origin.

I propose to continue the use of this treatment, and to report the results, at some future meetings.

Before approaching the subject proper of these remarks, I deem it useful to briefly review with you the varied methods now followed in the treatment of these ulcers.

1. *Antiphlogistics* were advised, but they are subject to many objections in certain cases.

2. *Stimulants*, such as aromatic wine, ointments of styras, divers preparations containing red precipitate, solutions of vinegar of different strengths, various mineral acids more or less diluted; solutions of soap, more or less saturated; solutions of nitrate of silver, perchloride of iron, chloride of lime, blisters, carded cotton, and even the red-hot iron.

All of the above remedies are occasionally useful, but are frequently attended with many disadvantages in their use.

3. The *water dressing* as used in England.

4. Methodical compression, as effected by carefully applied flannel bandages, or by strips of adhesive plaster, or emplastrum vigo.

5. Electricity.

6. *Incisions*, in cases of retarded cicatrization.

7. *Destruction* of the dilated veins.

8. Lastly, by *skin-grafting.*

I now reach the use of the sub nitrate of bismuth, of the efficacy of which I was ignorant, until its use was so highly recommended by my friend and colleague Dr. Mary Durand. The method of its application is as follows:

The bismuth is levigated, which means reduced to an *impalpable* powder, the ulcers and surrounding skin are carefully sprinkled with this powder to a thickness of several lines (3 mm.); over this a light pad of cotton wadding, retained in situ by a bandage applied sufficiently tight to create slight compression.

The limb is then placed in a slightly bent position, and absolute rest enjoined. At the end of three or four days this first dressing is removed. If there is found a commencement of cicatrization, which is frequently the case, the *adherent* scabs are respected, and those that are loose carefully removed. The same dressing is renewed, without washing or cleansing. The third dressing is made after a lapse of three or four days, according to the case. When the process of cicatrization is progressing favorably, dressings are renewed at much longer intervals. After the cicatrization is completed, for several days cold douches are practiced, upon the cicatrix, to strengthen the tissues, these douches are made with an irrigator, or other suitable instrument. The following is the observation mentioned above:

Mrs. L., aged 48 years, washerwoman; the subject of varicose veins of both legs for past 7 years; so severe as to make her throw up her occupation.

Several years ago she had an ulcer on right leg, which was cured after some time. About 17 months ago another ulcer appeared just above the external malleolus on right leg. After many alterations between improvement and aggravation, this ulcer was finally cured. But in the month of February last,

1882, the ulcer broke out afresh; she dressed it with aromatic wine, continuing her daily avocations. Finding no improvement she decided to call me in. I saw her April 3, 1882. The ulcer presented the following appearance: was of the size of a 25 cent piece, about two lines in depth, with ragged edges; an abundant purulent discharge, tinged with blood, grey pultaceous bottom; an inflammatory areola, from one-half to one inch, surrounded the bone. Pain *intense* in and around the ulcer, radiating to surrounding tissues. I applied over the ulcer and surrounding zone of engorged tissues, a thick coating of about (3 iss.) *one and a half drams*, of levigated bismuth powder; covered the whole with a pledget of cotton wadding, retained in place by a lightly applied bandage. Patient ordered to keep in the horizontal position, with limb slightly bent downwards. At the end of a few hours pain was entirely relieved.

April 5th, second dressing. A thick scab, surrounded and covered the ulcer, the central portion was soft, slight pressure over the central portion forced out pus; this central portion was carefully removed with forceps, special care used to avoid all parts of scab which were adherent. The wound thus exposed, was already contracted to the size of a ten cent piece, red granulating, and but slightly below the level of the surrounding tissues. The inflammatory areola perceptibly diminished.

Fifth day—third dressing. Ulcer further reduced in size—inflammatory areola entirely gone.

Seventh day—fourth dressing. Thick scab now covers whole ulcer; do not interfere, but cover whole with bismuth powder.

Tenth day—fifth dressing. Scab adherent over whole surface. As a measure of precaution, left untouched. Same dressing renewed.

Thirteenth day. Scab falls; leaving the ulcer completely healed. Thus thirteen days with five dressings, entirely cured an ulcer which had lasted for eighteen months, attained the size of a 25 cent piece and a depth of from two to three lines. I ordered as a means of strengthening the cicatrix, douches of cold water, twice a day for a week.

Use of Sub Nitrate of Bismuth.—Before speaking of the mode of action of the sub nitrate of bismuth, it will be interesting to say something of its topical use.

The sub nitrate of bismuth is used as a cosmetic, under the name of *Blanc de Faid.* This powder is far better than white lead. Sub nitrate of bismuth, discarding its uses as a beautifier of the skin, for coquettish, or theatrical purposes, is useful in medicine as an absorbent powder. A mixture of equal parts of tan bark in powder, powdered starch and sub nitrate of bismuth, forms an excellent application in facial impetigo, mixing with the discharge, solidifying and covering the affected parts with a scab under which cicatrization pro-

gresses. When these crusts are detached, they leave the skin smooth, and the discoloration soon disappears entirely.

"Since this recipe, was given me" says Faussagrives, "by my learned and much regreted confrere, *Jules LeCoq*, I have employed it frequently, and always with the most satisfactory results." Intertrigo, erythema, eczema, are all benefited by the topical use of bismuth. This remedy has been successfully employed in painful cracking of the nipples, chapping of hands, in vulvar and in aural fissure.

Trousseau frequently prescribed in the above affection, a glycerole of 1 part glycerine to 3 parts sub nitrate of bismuth.

L'Evêque advises, in moist ring worms, as a topical application, to cover the parts affected, with a paste of bismuth and water and to apply over whole a poultice of starch sprinkled with glycerine.

Debout recommends in vaginitis and inflammation of the uterine neck, dressings with tampons soaked in a glycerole of bismuth.

Courty regards the sub nitrate of bismuth, applied by insufflation to the neck of the uterus, as one of the most useful remedies in ulcerations of this organ.

Fallin prescribed in *ciliary* blepharitis and granular conjunctivitis, a glycerole of equal parts of glycerine and bismuth. Possibly the insufflation of the powder of bismuth in ulcerations of the cornea might prove as useful as those of calomel.

Velpeau as far back as 1860, used as an application to burns, bismuth in preference to the Carron ointment (oil and lime water). In one case when a burn in the third degree, was accompanied by severe inflammation, he removed the cuticle entirely and powdered the raw surface with powdered bismuth. All inflammatory symptoms were controlled at once and healing progressed rapidly; this should not astonish if we take into consideration the remarkable healing properties of the sub nitrate of bismuth.

Gintrac advises bismuth as a remedy in erysipelas, erythema herpes, eczema, and all superficial erosions of the skin. According to Gillette—

1. The sub nitrate of bismuth is to be preferred to the vegetable powders (starch or lycopodium) which have a tendency to mass and become spongy, where there is much secretion and are incapable of acting chemically on the products of suppuration.

2. It is *contra-indicated* where there is a re-appearance of acute inflammatory action and where profuse suppuration is necessary to cure.

3. Bismuth is hurtful in fistulous ulcerations, because it is too drying in its effects.

4. When ulceration is flat, and when the purulent secretion is without consistence, and when, in consequence, it is impos-

sible for a protecting scab to form on the surface, thus favoring healing, or when the necessary chafing of the parts is constantly destroying the work of repair, then the impalpable powder of sub nitrate of bismuth is of the greatest use, drying, as it does promptly, the serous oozing, giving a consistency to the secretion, which thereby facilitates the formation of a scab under which healing goes on uninteruptedly.

Mode of Action.—According to Monneret, Gintrac and others, sub nitrate of bismuth is most generally an inert substance, covering the diseased parts, and affording mechanical protection as it were, against all causes of irritation, similar to that afforded by greasy applications, collodion, and salves generally. Sometimes, however, bismuth becomes a chemical agent, combining with the gaseous emanations, watery exudation, mucus, or acid, and acts as a disinfectant.

This chemical action is proved in the intestinal canal by the production of the sulphide of bismuth, and by another circumstance, that the *curative* and beneficial effects of bismuth are never more evident than when the dejections are blackened and sulphurous.

I am not certain that the action of the sub nitrate of bismuth, may not be due in some measure to the presence of a certain amount of acid, which it almost always contains in the ordinary specimens found in commerce.

To whatsoever it may be ascribed, the first effects of bismuth locally applied, certainly are to rapidly reduce inflammation, relieve pain, and diminish secretion.

Certainly the position of the limb, rest and light bandaging, may be considered useful adjuvants in the process of cure. I have witnessed, however, in the *Invalides*, under the care of Dr. Mary Durand, the use of the same treatment with the bismuth, the patients allowed to walk and take exercise while under treatment, where the cure was *delayed*, but not prevented.

In making this communication it is not my object to present a new remedy, possessing infallible action in all cases. No. I wish simply to call attention to a remedy possessing many qualities to recommend its trial in *varicose ulcers*, where the *rapidity* of *action*, and the infrequency of repeating dressings, are real advantages over many others hitherto employed.—*Journal de Medicine*, Nov., 1882, pp. 502 et seq.

THE ANÆSTHETIC AND DIURETIC ACTION OF THE EXTRACT OF CORN SILK.

By Doctor Ducasse.

(Translated for N. O. Med. and Surg. Journal, by L. F. Salomon, M. D.)

The anaesthetic and diuretic action of *stigmata maidis* (corn silk) was announced in 1879. But on comparing the results which I have obtained with those which have been pointed out

since that time, it does not appear to me that this double action has been sufficiently insisted upon.

Taken in the form of extract, or syrup of the extract, in a manner to make the doses equal to from 1 gramme 50 centigrammes to 2 grammes (22½ to 30 grains) of the extract per diem, the stigmata maidis relieves better than all other means the pains of chronic cystitis, of gravel and of nephritic colic, at the same time that it favors in the latter cases the expulsion of the gravel.

This anaesthetic action is even so manifest that I shall be surprised if one day or another there will not be discovered in corn silk some alkaloid possessing a special anaesthetic action on the urinary passages. Notably in nephritic colic, when injections of morphia do not suffice to relieve the pain and ease the patient, the syrup of corn silk renders it more bearable and micturition is much more full, carrying with it a much larger quantity of gravel than is generally observed. And if the medicament is continued regularly at the beginning, and afterwards at intervals, the condition is rarely seen to return. It is, in a word, the best preventive of gravel and nephritic colic. In acute cystitis the anaesthetic effect is not produced, doubtless because there is an inflammatory element which prevents the mucous membrane from being acted upon.

As regards the diuretic action, which is denied by many physicians, I believe that their want of success has been due either to the mode of administration or the quality of the corn silk, and I entirely agree, from having often seen the proof, with the opinion of Dr. Landrieux, physician to the hospitals of Paris, who ends his researches upon this subject with the following conclusions :

1. Not only are the different preparations of stigmata maidis useful as a modifier of the secretions of the urinary passages, but these same preparations can be equally considered as an uncontestable *diuretic agent.*

2. Diuresis is rapidly produced, and in three or four days the augmentation of the amount of urine becomes evident and considerable.

3. The diuretic effects are observed, not only in the organs of urinary secretion, but also in disturbances of the circulatory system (diseases of the heart and blood vessels).

4. The pulse is regulated, the arterial tension is increased, while the venous tension is diminished.

5. The medicament does not cause the least disturbance, either of the nervous system or the digestive functions.

6. Tolerance for this drug is complete and absolute, and medication in chronic diseases can be continued without inconvenience for a month or six weeks, according to my observations.

I have not experimented with the lilly of the valley (*lilium convallaria*), in regard to which for some time past so much has

been said, but I doubt whether it is worth more in a diuretic point of view than the stigma of corn.

I could, in support of the foregoing, cite numerous cases, but I would become tedious, and I believe that I have said enough to encourage others who read this to experiment with the remedy, which I am certain will give them satisfactory results.—*Gazette des Hopitaux*, No. 141, p. 1125.

POISONING BY PHOSPHORETTED MATCHES—CURE.

By Dr. Alfred Rouxeau, former Interne of the Hospital of Paris.

(Translated for N. O. Medical and Surgical Journal, by Henry Bonnabel.)

On the 29th of March, 1881, I was called to see a man, Mr. M., who had just poisoned himself with phosphoretted matches, It seemed that about eight o'clock in the morning he had macerated two boxes of common matches in a glass of water, and, after stirring the liquid well, swallowed it. In order to be sure of leaving no poison in the glass, he repeated the operation a second time, and had prepared a third dose, which he had partially swallowed when he was interfered with, and ceased. This happened about eleven o'clock, A. M.

About noon I was sent for. I was shown a large bunch of softened matches and a glass containing one or two spoonfuls of a turbid liquid, smelling of garlic. I found the patient, who was about forty years of age, doubled up in the bed, and looking very gloomy. He positively refused to answer any questions or submit to any examinations. Nevertheless, as it was clear that the fact was before me, and that I should lose no time, I ordered an emetic to be given immediately, and as soon as copious vomiting had taken place, a potion containing four grammes of essence of turpentine, one table spoonfull every hour. I saw the patient four hours after my first visit, and, as I feared, he had taken neither emetic nor potion. This is what had happened since noon: Shortly after I had left him, nausea had set in; at one o'clock he vomited a little rose-coloured liquid; similar vomits were repeated three times by four o'clock. During this interval, though he made no complaint, his attitude and constant changes of position in the bed, showed that he was suffering. He still had the same gloomy look; red cheeks; warm skin; perfectly mute, and absolute refusal to undergo any examination. While I was present he vomited about a tablespoonful of pure blood; at half past five and half past seven o'clock, similar vomitings took place- He passed no urine. At last, after repeated entreaties, he consented to be taken care of; refusing the emetic, he could only be induced to take a tablespoonful of the turpentine potion every hour. From that moment the nausea and vomiting ceased and did not return. He passed a very quiet night, and next day spoke of

going to his office. I, however, told him to remain in his room that day, continue the turpentine potion, a tablespoonful every hour, and partake of cooling drinks. He passed a good day, and the next, that is the third day, his condition was satisfactory, mind clearer, and I could obtain some answers to my questions. I then learned that the day the poisoning took place he was suffering from an acute attack of vesical tenesmus and with great difficulty had passed a few drops of urine during the day. Congested and red as his face was, it had changed to a light brownish color. I ordered him to continue the use of the turpentine and to remain in his room. I feared that this improvement in his condition might be one of those deceiving remissions that we so often see from the second to the fourth day, even in the most serious cases of phosphorus poisoning. Fortunately nothing happened, and the cure was absolute, far more rapid than is generally the cure. There was hardly any convalescence.

A year after, I saw the patient again; the cure was perfect except a persistent slight brownish tinge, which perhaps was natural; he looked well and enjoyed good health.

The action of the spirits of turpentine as an antidote for phosphorus has been doubted by several authors, among others Vigier, Civrie, Depaire, Millard and Bergeron. We think, however, that no matter how slight the poisoning may have seemed at first, that the cure of the patient can be attributed to the spirits of turpentine and may add this case to many others treated in a similar manner by Andant, Rommelaère, etc.

1st. Mr. M—— swallowed a sufficient quantity of phosphorus to cause death. Death has happened after the ingestion of 100, 75, even of 50 matches. But Mr. M—— used the phosphoreted paste of 150 matches, as was subsequently ascertained, and which contained at least 13 centigrammes of phosphorus. Dr. Tardieu cites a case in which he found 60 centigrammes of phosphorus in 150 matches. If we reflect upon the manner that Mr. M—— took the poison, we may easily come to the conclusion that he swallowed every particle of the phosphorus. For, sufficient time did not elapse between the preparing and the swallowing of the mixture to allow of the slow oxidation of the phosphorus and its change into phosphoric acid, a less active body; but, on the contrary, there was more than time enough for the water to absorb all the phosphoretted paste that was on the matches, a fact that I verified myself. We have seen, by the way that Mr. M—— prepared and drank the poison, that a very small portion was left unswallowed. If I insist so particularly upon these details, it is, that in many phosporus poisoning cases, notwithstanding a mortal dose, death does not happen; the reason is that one of the conditions that I have already referred to, did not take place.

2d. The mortal dose of poison absorbed, produced the phenomena of positive phosphorus poisoning. We must remember that the patient not being a temperate man and not having eaten anything, was in a very favorable condition for the rapid absorption of the poison. The ordinary period of incubation is from five to eight hours, but in this case vomiting took place in less than two hours after the ingestion of the last dose of poison. There was no icterus, for I cannot thus term the light brownish color of his face, and though this is one of the most important symptoms of phosphorus poisoning, in many fatal cases it has not appeared. The most important point was the vomiting of blood. Convalescence generally is very long, from ten days to six weeks, but in this case there was no convalescence, everything was over in four days. The experience of Rommelaêre with essence of turpentine is similar to mine, inasmuch as he cites the case of a woman who took an infusion of fifty matches in coffee; the symptoms were severe epigastric pains, vomiting and breath smelling of garlic. Essence of turpentine administered two hours after, relieved the patient to that extent that she left her bed the next day and in four days was well.

In 1875 Tardieu only knew of one cure of phosphorus poisoning, where essence of turpentine was not given. I have since heard of two more; and of thirty-five cases of positive poisoning by phosphorus, these are the only three which were not treated by essence of turpentine.

3d. From the very moment the essence of turpentine was given, the symptoms, which were increasing at the time, ceased entirely and did not reappear. Of twenty cases treated by turpentine, only four resulted in death. Ermann's patient took the turpentine the second day, Anderson's the third day, Boiffin's the fifth day, and as to Vermeil's case, although the patient took the turpentine early, still, as he was constantly vomiting for thirty-six hours after the ingestion of the poison, the antidote could have no effect. Anderson's patient was a child twenty months old, who had been purged with castor oil, and each one of the four had drunk milk in quantities, which toxicologists aver had an unfavorable effect by dissolving the phosphorus, thereby facilitating absorption. In the cases that were cured the antidote was generally given about seven hours after the poisoning, rarely after twenty-four hours.

In conclusion, I think that essence of turpentine, when given in time, is absolutely beneficial in phosphorus poisoning, by preventing the phosphorus from oxidizing the blood, either by giving it oxygen (Thiernesse) or by forming with it an inert body, not poisonous, eliminable by the urine, and whose type would be turpentine-phosphoric acid (Rommelaère). For a further study of this question, I refer to the special works of Personne, Koelher, Schimpff, Thiernesse, Rommelaére, &c.

I would say that the ordinary commercial spirits of turpen-

tine gave far better results than the rectified essence or the German oil of turpentine (Vetter, Rommelaére.)—*Gazette Medicale de Nantes*, Dec., 1882.

PROCEEDINGS OF THE BERLIN MEDICAL SOCIETY. MEETING NOVEMBER 29th, 1882.

Reported in *Deutsche Medicinishe Zeitung*, of December 7th, 1882.

Translated for N. O. Medical and Surgical Journal, by Dr. F. Loeber.

Doctor Sonnenburg gave his experience in regard to the applicability of Prof. Sayre's plaster of paris bandage in the treatment of diseases of the spinal column. During one year and a half, 205 cases of this disease came under his observation and care in the Polyclinic at Berlin. Each case required on an average three plaster of paris jackets; therefore about 600 bandages were made during this time, not counting a considerable number made in private practice. The reason Doctor Sonnenburg took this subject is, that of late the opinions of surgeons differ greatly in regard to the value in the treatment of Scoliosis and Lordosis, some even doubt that the results, as stated by Prof. Snyre, can be verified in practice.

At first, after the publication of Sayre, all cases of spinal defect were treated exclusively with the plaster jacket, but it was found very soon that the results in the treatment of Lordosis and Kyphosis differed greatly; the former a simple bending of the vertebral column, the latter a disease of the bone and bending combined. The plaster of paris jacket was therefore mostly used in the treatment of scoliosis, and of the 183 affected 166 were females. As soon as the diseased condition would be recognized, the plaster jacket was at once applied, no matter what the patient's age; being mostly required, however, in children from 10 to 15 years old. Thirty four times it was applied in children not above five years, and only four times in cases of 20 to 25 years. Observing a great many cases he found that the deformity commenced generally in the lumbar region, and from these progressed upward to the dorsal region, contrary to the general teaching, which says that the disease commences in the dorsal region. He calls it an ascending scoliosis. According to his experience, cases originating in the lumbar region have the most chances to be cured; and out of such only those that, when suspended, the column can be straightened and the curvature rectified. If no great change of the bodies of the vertebrae and ligaments has taken place, the curvature is easily remedied by slight extension, and by means of a well applied plaster of paris jacket is easily brought to its former normal condition. The best results were achieved in those cases in which by suspension the entire curvature was easily rectified and a plaster jacket at once applied. In those cases of scoliosis in which, by extension no change in the differ-

ent parts could be effected, the plaster jacket was used as a support, with the intention to prevent a further increase of the deformity; and excellent service has it done in these cases, no bad consequences ever having occurred. The so called total scoliosis which, as generally accepted, occurs frequently up to the seventh year, Sonnenburg observed very seldom.

The results in using the plaster jacket in the treatment of kyphosis and kyphoscoliosis were not satisfactory, although specially recommended by Professor Sayre in these kinds of cases. In one case death occurred, caused by pressure of the bandage on the spinal marrow. Others have found that in using extension and plaster jacket, they have oftener observed formation of abscesses, than by using other modes of treatment recommended in this disease. Sonnenburg has given up entirely the treatment of kyphosis and kyphoscoliosis by means of the plaster of paris jacket, and only uses it in the treatment of scoliosis and lordosis. Here the plaster of paris bandage will do well, if no inflammatory process of bone is present, and extension is not needed to ameliorate the false position of the spinal column. The principal thing we have to achieve by our therapy is the permanent correction of the malformation. Every treatment looking to this is good, and will be still better the more it takes into consideration the general condition of the whole body. All this, in his opinion, does the plaster of paris jacket do best of all. The objections raised by some, that by using it the general state of the health and the development of the organs and muscles of the chest are interfered with, is not correct; it can easily be avoided by a proper application and timely removal of the jacket. But, says he, with the plaster of paris jacket alone, although a powerful auxiliary, no perfect cure of scoliosis can be effected. His treatment is the following:

After having convinced himself that by suspension the curvature can be removed, or consideraby ameliorated, he applies immediately a plaster of paris jacket, and lets it remain six to eight weeks. After removing it, he lets the child go without the jacket, so that the atrophy of the muscles may be checked, and lets the patient have a bath every day. If necessary, a second jacket is applied. After the removal of the second one, if the curvature is lessened, or entirely removed, a light jacket is applied for support, and the muscles are daily exercised; in summer by swimming. After the lapse of two or three months a new jacket is applied, etc. If continued in this manner for two or three years very satisfactory results are obtained. In applying the jacket, Dr. Sonnenburg leaves the shoulders perfectly free, since, in his opinion, the fixation of the lower part of the vertebral column is sufficient to protect the spinal processes. Long splints are applied on both sides, and all processes of bones must be well protected. The bandage must be

drawn tightly above the mammae, and must lie tight on both sides of the chest. Children can go to school with this apparatus on, and perform their various duties.

He closes by recommending the plaster of paris jacket as the principal therapeutical agent in the treatment of scoliosis, but in the inflammatory diseased condition of the spinal column, finding it more to impede than to promote the curative process, he does not think its application indicated.

Discussion.—Doctor Kuester agrees with Doctor Sonnenburg in regard to the good results obtained by this treatment, but does not agree that scoliosis generally should be considered as an ascending lumbar disease. He thinks we have to differentiate between a rachitic and an habitual scoliosis. In the first, the compensatory curvature seems to be secondary, but not in the latter. He has often seen cases where a curvature of the dorsal vertebrae existed, but none in the lumbar. In regard to treatment, he also is an admirer of plaster of paris jacket, but here also we must differentiate in our cases. In the commencement of habitual scoliosis, he prefers a felt jacket, as the development is not prevented by its use, and the support is at the commencement of the disease sufficient; in all other cases he uses plaster of paris. A favorable word he wishes to say in regard to the treatment of kyphosis with the plaster of paris jacket. He never has seen bad symptoms after its use, and knows of no better remedy to remove existing bad symptoms than the plaster of paris bandage. Extension must be moderate, and only carried to such a degree that the child suspended still stands on its toes. We do not want an extension of the vertebral column, we want to relieve the affected vertebrae from their burden. He objects to the method of extension under chloroform as recommended by Von Langenbeck, since no control can be had over the degree of extension.

Doctor Israel, also, has seen only good results from the use of the plaster jacket in the treatment of kyphosis, and considers it the soverign remedy in this disease. It must be well distinguished from the kind of jacket used in scoliosis. Doctor Israel has even in carious defects of the deep lumbar vertebrae extended the apparatus to the upper part of the leg of the patient, so that he could be easily handled. By its consequent use he succeeded in effecting a perfect cure of kyphosis with caries also entire resorption of the abscesses in the iliac fossa, the existing paresis disappearing entirely. Doctor Eulenburg thinks that in the treatment of kyphosis by the plaster jacket, by its constant extension a vacuum would be formed, preventing the healing process by synostosis. According to his experience one-half of the cases originate in the lumbar, the other in the dorsal region. Rachitic scoliosis manifests itself without exception by a large curve, convex towards the left. In most of the cases the dorsal region alone is affected, and are greatly benefitted by a plaster of paris

jacket. Scoliosis, according to his experience, must be treated before the fifth year.

Doctor Jul Wolff agrees with Sonnenburg in the mode of treatment in regard to children under five years, but in older children he prefers movable bandages, and recommends those of liquid glass, which can be made over a model, so that the exposure of the patient to moisture is avoided: by means of lateral straps fixed in the bandage, pressure can be made over protruding parts. This bandage is light, and durable.

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EDITORIAL.

"THE ETHICAL PROBLEM."

In the January number of this journal the Ethical Problem was discussed by Dr. Joseph Holt in a manner which we took occasion at the time to pronounce both able and manly. It is unquestionably true that, with the organization of the association, over which Dr. Holt presided for the past twelve months, there has been, as he says, "a kindlier feeling among physicians." It is true also "that this better sentiment has steadily gained in strength, and has diffused itself, until it is now the pervading principle governing the profession in New Orleans." In short, professional association has brought about personal acquaintance, and closer acquaintance has engendered friendship. This is as it should be. Nay, this is the usual outcome when gentlemen associate together, whether

professional or not; and there is nothing sufficiently unusual in such a result as to make it a matter of special remark.

Accepting Dr. Holt's statements, the medical profession in New Orleans was once imbued with very low convictions in regard to ethical propriety. We know that this is not the case at present. Dr. Holt attributes the fact to the good wrought by the New Orleans Medical and Surgical Association, or mainly to those special features in its organization which excludes from its entertainment and discussion everything of an ethical character. From his standing-point we are inclined to take Dr. Holt's view of the question. Bodies deliberative, investigative, only; bodies born simply to weigh, to discuss, to prosecute researches; collective bodies existing merely for the general acquisition of professional knowledge and the better advancement of ethical sentiments, can not evidently be regarded as supervisors of morals. An association founded merely for the double purpose of advancing medical knowledge and encouraging good fellowship, has no jurisdiction in questions involving medical ethics.

The following quotation shows how little confidence Dr. Holt has in the effectiveness of the code of ethics: "Their only notion of an association was based on a huge constitution; a lot of statutory laws called by them a code of ethics, which, among other things, provided for the establishment of an amusing little tribunal, a sublime mimicry of magisterial dignity, called a Court Medical, or some such terrifying title, that proved as effective as a Chinese gong in battle; a sort of criminal court or inquisatorial judiciary, composed of a set of doctors, some of whom were refreshingly immaculate and peculiarly qualified as censors. These were to say whether a man should be humbled and declared in public disgraced, or acquitted, or pardoned. They could degrade, but could not exalt—jealousy forbade! However, the code was all right; the tribunal was all right; the only one all wrong was the egregious simpleton who deliberately gave any set of men such extraordinary authority over himself: selling his birthright for less than a mess of pottage."

This is as much as to say that "Courts Medical" are so in

name only, and immediately Dr. Holt points out the mistake and the bad result of having anything to do with them, in these words: "It was the uniform experience of these organizations that the upright and pure in heart, men who were guileless and needed no regulation, were perfectly willing to come under the law and to abide by it; they having the law already written in their hearts; while tricksters and professional scamps, who needed much restraint, would not suffer themselves to be controlled by a code, or in any manner be brought under its power."

These are significant words. They show very clearly the little confidence which the writer has in the power of medical societies to enforce compliance with ethical requirements. But the words show more than this. If we mistake not, they show more than the author suspected. Admitting all he says from his point of view, looking at it from another, may one not ask how it is that the members of the association over which Dr. Holt presided, possessing, or through the benign influences of the accociation acquiring, so much kindliness of feeling and other praiseworthy attributes, decline to subscribe to the *dictum* that "men who were guileless and needed no regulation, were perfectly willing to come under the law and abide by it?" And if one desired to be satirical, which we do not, he might answer the question with another part of the quotation running thus: "professional scamps, who needed much restraint, would not suffer themselves to be controlled by a code, or in any manner be brought under its power."

It is perfectly plain from the general tenor of Dr. Holt's address, from every word of some of its seemingly strong sentences, that his highest conception of a medical society, and of a code of medical ethics, is that the one is an agreement among men to act together for mutual benefit in things medical, "claiming no authority outside the meeting-room," and to advance the science of medicine; the other, a body of laws prescribed for professional guidance, but effectual only against those who voluntarily acquiesce. Doubtless there are many whose conception is the same. Doubtless there are many societies so framed as to warrant no other conception. Doubt-

less the laws of many States permit no higher construction. But there is a higher construction, and a point of view differing greatly from the one of Dr. Holt, from which to look at the "Ethical Problem."

At the outset it may be asked, even if medical bodies have no legal jurisdiction, why may they not have a code of ethics as well as a constitution and by-laws?

Probably Dr. Holt would answer: "Because the ethical education of each member is supposed to antedate the society, having been drawn from his *alma mater* constitutions and by-laws cannot begin before, but are part and parcel of the society." But all men do not posses the same receptivity. Cerebration, like the voices of the grammarian, may be either active or passive. In plain English, some may acquire knowledge rapidly; others may not. Suppose, then, notwithstanding his *alma mater* does her best to instil every ethical essential into his mind, that he starts out upon his professional voyage not so well prepared as he should be, would not a little ethical knowledge kindly furnished by his society be likely to redound to his benefit and to that of the community wherein he happens to cast his lot? We think so decidedly. It will not do to cast the blame upon the medical schools. Confessedly they ought to bestow more care upon the youths who, like the bees, leave the hive in swarms every spring, and betake themselves to green pastures. But back again comes the question of mental receptivity. The schools might exercise the utmost pains, and still a dullard here and there would slip by with a knowledge of things ethical ranging close down to zero. To this Dr. Holt might say, "let such youths be rejected in the green room, every man-jack of them." This would be asking too much. In a great and growing country like this, the productiveness of the medical crop must be kept up at all hazards. Too much has been accomplished to allow the entertainment of failure for one moment. Surely Dr. Holt must be as well aware as ourselves that it was reserved for the genius of American institutions to demonstrate, in the manufacture of physicians, that there *is* a royal road to knowledge. Too much, therefore, must not be expected of medical schools; at

least in the way of ethical teachings. Every fair minded man will admit that, strive as they may, they fail to impart in some instances all the knowledge necessary to intelligently comprehend even such minor matters as anatomy, physiology, therapentics, *et cetera*. This is bad, to be sure. But what shall be done? The making of doctors medical must go on; else what is to become of the medical schools that, as Patrick Henry said of the fleets and armies of Great Britain, "cover our waters and darken our land?" These schools, especially the little ones, are not going to vote themselves extinguished, if medical students never learn any ethics; and to this statement Dr. Holt will agree we'll be bound.

What more natural then, than to look to society for ethical training? Human beings are not all angels, but no more is all human nature naturally bad. Many persons err through inclination; we feel sure that many doctors err through ignorance. To the latter a code of ethics is a manifest blessing.

Having agreed with Dr. Holt, that since the founding of the New Orleans Medical Association a kindlier feeling has developed among its members, and amongst the fraternaty generally, we shall ask him to agree with us in saying that in no city does quackery flourish with more bare-faced effrontery. In what other city are the walls defaced more flaringly than are those of New Orleans with the advertisements of quacks and nostrum-venders? Is there a city in the world where the laity, recognizing the fact that the medical fraternity exists disorganized, have organized against it with more consummate effectiveness? How many other cities are there in the land where through dismemberment and ethical abnegation, doctors agree to physic benevolent associations, factory hands, etc., etc., at less than ten cents a visit? But it may be objected that "a Court Medical," "an inquisitorial judiciary, composed of a set of doctors," cannot prevent this state of things. Granted, so long as the organization and discipline of physicians in this city is such, that nothing higher can be said of their power for good than that "they could degrade, but could not exalt." But this should not be. Certainly a code of ethics can do no good to those who resolve to re-

main without its pale. But if there was more inclination to organize, a stronger desire for discipline, and a wiser appreciation of codes of ethics, the way would be paved for co-operation for professional betterment. The first outcome would be county organization. From this would proceed state organization; and in the end State legislation. Result: the physicians would be benefited, and in consequence the public; medicine would be given the high position which it rightly deserves, and the code of ethics would be vindicated.

We admit that it is not possible to "legislate fidelity to principle," but we assert that it is possible to legislate the unprincipled out of the way. It has already been demonstrated that medical men by conjoined effort can bring about statutory enactments that sweep quacks beyond state lines, and bar the contract system out of existence. But this cannot be done while ethical codes are held in such emphatic disesteem.

In contrasting the conditions of the States of Louisiana and Alabama, one cannot help noticing what conformity to the spirit of the "code" has done for the latter. Not a quack in the State. The contract system unknown, county societies thoroughly organized, and organized not only "for mutual improvement, instruction, and interchange of opinions and observations", but in their sphere clothed, like the judge on the bench, with power to declare and to execute.

Far better would it be for the medical fraternity, and thereby for the laity, of Louisiana, if all of its members yielded to the spirit of the Code of Ethics, and made common cause in the interest of State medicine. Then, perhaps, in Louisiana, as in Alabama, a Jerome Cochran would come to the fore, and lead her on to a higher plane, where the Code of Ethics would have safer footing, and the clear light of solution would be let in on the "Ethical Problem."

Reports of Cases.

I.

GUNSHOT WOUND OF LUNG AND SPINAL CORD.

(Service of Prof. T. G. Richardson, M. D., Charity Hospital.)

Reported by J. B. Shelmire, Resident Student.

Jos. McCarthy, aged 35 years, received a gunshot wound, Dec. 10th, 1882. Admitted to hospital Dec. 12th. Ball entered the left chest, in front of and about one inch below the coracoid process. Over the 6th and 7th dorsal vertebrae there was a bruised and painful spot, slightly elevated.

Considerable emphysema of sub-cutaneous tissues of chest in front, extending upwards above clavicle into tissues of the neck, and backwards two inches behind axillary line.

Face flushed, mind clear, temperature, 103° F.; pulse, 120; respiration, 42. Distressing cough, with expectoration of frothy mucus. No expectoration of blood since reception of wound.

Physical examination revealed evidences of consolidation of lung, anteriorly, over a small area; also pleuritis with slight effusion.

There was complete motor and sensory paralysis of both sides, from ensiform cartilage down. Behind, loss of sensation extended as high as 5th dorsal vertebra. No reflex action in muscles of lower extremities. Had not passed urine for 48 hours. Bladder distended, reaching above the umbilicus. Introduction of catheter imparted no sensation. Urine had to be drawn three times a day. Bowels were greatly distended with gas. Fæces passed in bed without knowledge of patient. Sensation experienced when deep pressure was made over the abdomen.

When admitted, patient said that he stood for a few seconds after being shot; then walked without assistance to an adjoining room, a distance of twenty feet or more, and lay down on his bed. Being under the influence of liquor he soon fell asleep. Awaking two hours afterwards, he first noticed the loss of motion and sensation in lower extremeties. A few days

after this statement, on being closely questioned, said that he would not be positive about *walking* without assistance to his room, but was certain of having STOOD where he was for a few seconds after receiving the wound.

December 18th. Consolidated portion of lung had undergone partial resolution. Loud friction sounds anteriorly.

Accumulation in chest cavity increased. Temperature abated, ranging from 100° to 101°; pulse below 100, respiration between 28 and 36.

No change in motor or sensory paralysis.

In spite of great precaution, bed sores began to develop over the sacrum, and over the 6th and 7th dorsal vertebrae.

December 23d. Symptoms of pyæmia, rigors, followed by high temperature and profuse sweating, former often reaching 104½° F.

There were sometimes two, and as many as three, paroxysms during twenty-four hours. Bed sore over sacrum and buttocks became large and deep—tissues sloughing almost to the bone. Effusion at this time filled two-thirds of chest cavity.

Mind still remained clear. Urine contained pus, also uric acid, and triple phosphate crystals in abundance.

December 29th. Temperature below normal. Body bathed in cold, clammy sweat. Died early in the afternoon.

AUTOPSY. The ball (38 calibre) fractured the left third rib in entering the chest and ranged downwards, perforating the left lung near its root, struck the 6th dorsal vertebra at the junction of the body with the pedicle, passed into the canal, through the chord, emerging between the 5th and 6th dorsal vertebrae, lodged in the muscles of the back just to the right of the column.

Left chest cavity filled with serum and blood, which had undergone decomposition. Costal pleura much thickened and inflamed. Lung was pressed back against spinal column and seemed almost carnified.

The ball struck the lateral column of the cord, and passing directly through, left a bridge anteriorly and posteriorly. The anterior bridge was almost of the width of the transverse diameter of the cord, and probably one-fifth of an inch in thickness.

The width and thickness of the posterior bridge was about half that of the anterior. The cord had undergone softening above and below for an inch or more.

Stomach and intestines very much distended with gas. Liver and kidneys enlarged and congested, otherwise normal. Other organs, on microscopical examination, healthy.

II.

POST PARTUM PAIN.

Reported by W. H. Watkins, M. D.

Mrs. I. H., aged 23 years, a native of New Orleans, the mother of two living and three premature children, was taken in labor at 2 o'clock, P. M., Dec. 9th, 1882. The labor was normal and terminated at 4:15. The last pains were severe, but easily borne by the woman, who throughout the ordeal was the picture of courage and endurance. The placenta was found in the vagina within fifteen minutes after the birth of the child, the uterus having been prompted to thorough contraction by gentle kneading of the organ. She passed a comfortable morning, and the child was put to breast about 8, A. M., and sucked vigorously. She observed that on the application of the child to the nipple she felt slight pains. She fully appreciated that these were the usual "after pains" accompanying child-birth and said that she was not annoyed sufficiently by them to call for the administration of the camphor julep, which I had administered at a previous confinement. I saw her in the evening and she was very comfortable and cheerful, having slept two hours during the day.

At 3, A. M., twenty-three hours after confinement, she aroused her husband and said that for an hour she had been suffering most violent pains and was unable to stand them any longer. Mr. H. says that so changed was his wife that he hardly recognized her. She was pale, breathing heavily, and covered with profuse perspiration. She lay on her back, with thighs flexed and knees in a constant swaying motion. On asking her where the pain was she placed her hands in each illiac region and pressed these spots forcibly, as if endeavoring to relieve pain,

Calling on a neighbor to remain with her he came for me. I reached her bedside about 8, A. M. The aspect of the case was appalling. She was as pale as a sheet, covered with clammy sweat, and uttering cries of exceeding anguish. On placing my hand over the uterus, it was found contracted firm and hard, and perfectly normal in size and position. The discharge from the vagina was nominal and free. The introduction of the finger into the uterus gave no pain. The pulse was so rapid as not to be counted. Although in a condition of the greatest exhaustion there was no evidence that loss of blood could possibly account for it. Pain seemed the only factor and this was referred to the wings of the pelvis and never to the uterus. Relief from this was the first and only indication. As soon as it could be procured I administered hypodermically one-fourth of a grain of morphiae sulphatis, with one forty-eighth of a grain of the sulphate of atropia. Remaining with her for more than an hour, I had the satisfaction to see her breathing become more regular, her pains disappear and she soon fell into a pleasant sleep, from which she was easily aroused to express herself as feeling perfectly relieved. Her pulse was then over 150. At a visit early in the afternoon, I found her resting well. Her pulse was 140, no elevation of temperature. She had nursed her child without discomfort. The lochia was normal. From this time she made a perfectly natural recovery from child-bed, had an abundance of milk, a good appetite, and at this time she and child are well.

III.

ANTE-PARTUM HEMORRAGE.

Reported by W. H. Watkins, M. D.

On September 30th, I was summoned in haste to see Mrs. K., who had been in labor for several hours, and in the hands of an experienced mid-wife. From her I obtained the following history:

The labor commenced with the usual slight pains, which increased gradually in severity and frequency. The os became dilated and the bag of waters formed. The head of the child

presented. Everything seemed normal when suddenly the woman complained of great weakness and thirst. With each pain there was a flow from the vagina of what appeared to be bloody water, but the membranes remained intact. The quantity of blood passed was inconsiderable, but the extreme palor, quick pulse and other symptoms of prostration increased.

On reaching her, I found her pulse scarcely perceptible, her skin bathed in profuse perspiration and her face wearing an expression of great anxiety. Examination revealed a fully dilated os and the bag of waters appearing at the vulva. The pillow was quickly removed from under her head and placed under the pelvis. A strong whiskey toddy was administered and some ergot, which the mid-wife luckily had, was at once given. I immediately ruptured the membranes. The head of the child, already engaged, rapidly descended and within fifteen minutes the child was born. As the lower extremities of the child was removed from the vulva an immense mass, which for a moment I thought was the placenta, followed. It proved to be an immense blood-clot, much larger than the placenta, which was immediately removed and was followed by firm contraction of the uterus.

The only solution of the phenomena presented in this case is, that during a contraction of the uterus a portion of the placenta became detached and hemorrhage ensued. The membranes being unruptured, served as a tampon, which prevented the blood from finding its way into the vagina, except in the small quantity, draining away under uterine contractions. The large firm clot had acquired its consistency owing to the serum in a great measure having escaped.

The child was dead, but the woman made a good recovery under free administration of beef-tea, milk and stimulants.

IV.

CASE OF RETAINED FŒTAL HEAD, SEPARATED FROM THE BODY DURING LABOR.

Reported by L. F. Salomon, M. D.

I was called in the evening, at about 7 o'clock to see a lady under the following circumstances:

The gentleman who called stated that he was a graduate in medicine but had never practiced, and that his wife was in labor at about the sixth month of pregnancy. The liquor amnii had escaped about five days before, and, as the fœtus had not been born and pains had ceased, he felt somewhat alarmed and begged me to go with him. I did so, and upon reaching the house, found the following:

Premature labor at six months. Third pregnancy. The os uteri was well dilated and pains feeble. Breech presentation. The introduction of the hand appeared to stimulate the uterus, and the contractions became more frequent and forcible. This condition, however, did not last, and as the woman was much exhausted and there was no hemorrhage, I ordered an opiate, to give her rest during the night, and returned next morning.

She had slept well most of the night, and I found her in the same condition as at my previous visit. I gave a dose of ergot, which soon caused uterine contractions and descent of the breech, and without any trouble the fœtus was extruded as far as the shoulders, when the arms became locked and prevented further progress. I brought down and delivered the arms, and during a pain, made slight traction (not exceeding ten pounds), upon the body, which was very much decomposed. To my surprise the body easily came away and I immediately saw that it was headless. The little force that had been used in my desire to assist delivery, was enough to sever the head, which was doubtless firmly held by the uterus. Examination showed a small head retained within the uterine cavity, and I attempted to extricate it. The woman was put under chloroform, and every effort with forceps, placental forceps, and the hand introduced into the uterus, failed. The head was so small and the uterus so much enlarged (all contractions had now ceased), that the head slipped about from side to side, eluding all attempts to grasp it.

After repeated unsuccessful trials, and seeing that assistance was necessary, I sent for my friend Dr. W. H. Watkins, and upon his arrival we renewed the efforts at delivery, which was finally accomplished in the following manner:

Whilst I, with both hands grasped and held the uterus firmly pressed down, Dr. W. introduced his hand into the uterus and inserted his finger into the mouth, and succeeded in bringing away only the inferior maxillary bone. He then perforated through the left parietal bone, and attempted to deliver by introducing one blade of the placental forceps into the cranial cavity and firmly grasping the bone. So far had decomposition advanced that he only brought away a part of the parietal bone. At last, by introducing two fingers into the cranium and grasping firmly, he succeeded in delivering. A hypodermic injection of 3ss Squibb's ergot was made into the buttock, firm contractions immediately came on, the placenta was delivered, and the woman made a good recovery.

Strange to say there was little or no hemorrhage. The after treatment consisted of antiseptic vaginal injections, and the case progressed as favorably as the simplest case of natural labor.

I report this case as being unique, and one such as I had never read or heard of. The woman had been in labor four or five days; decomposition had so far advanced that the gentlest traction caused the parts to separate without resistance, and the difficulty of grasping so small a head (six months fœtus), which rolled around as it were in the distended uterus, made the case annoying to me, and distressing to the relatives of the patient, and one in which I was powerless without assistance. For it was only by firmly grasping the uterus, and thus steadying the head that it could be at all reached by Dr. W., to whom I am indebted for valuable assistance.

V.

ON OTOMYCOSIS ASPERGILLINA.

Reported by Dr. L. H. Von Gohren.

A case of diffuse inflammation of the external ear, which came under my observation in the earlier part of the past year, reminded me, by its obstinacy in resisting the common means of treatment, and by the reappearance of the symptoms at intervals, of a series of cases witnessed at the ear clinics in

Vienna, in which the resistance to treatment and the renewal of the attacks could be traced to an irritation produced by vegetable parasites lodged in the inner parts of the external ear.

As such cases are not so uncommon in practice, I will relate that case together with some remarks upon these germs, their nature, origin, and the part they take in keeping up inflammation. We meet in the external ear mostly the different forms of aspergillus (nigricans, glaucus, etc.), but also ascophara elegans, trichothecium roseum, mucor mucedo, etc., etc., are found. In a normal condition of the channel these organisms are not likely to appear, while a loosening of its epidermic layer and a superficial inflammation of the cutis greatly predispose for the infection by them. Dr. Loewenberg, of Paris, in his article about "The vegetable parasites in the human ear," etc., Paris, 1880, and other writers before him, state that the use of fatty oils and grease in treating ear troubles, favor particularly their growth and propagation. According to these authors, these substances when introduced into the ear soon become rancid, irritate and inflame the lining membrane and prepare by so doing a fertile soil for the reproduction of these germs, always floating in the air. They attribute such effect also to watery solutions (so often used in ear practice), when impregnated with germ elements, and recommend boiling and filtering before use, or better, to employ in preference alcoholic ones.

Professor Schwartze, in Halle, first wrote upon the subject (1865). In his work on the *Pathology of the Ear*, he says that he discovered micro organisms between the loosened layers of the epithelium of the ear, sending filaments into the free space of the channel. They were of a greenish or grayish color and could be easily detected, even with the naked eye. In some cases they invade the tympanum and appear there superficially in irregular insular groups.

He considers these germs not as producing a parasitic inflammation, *per se*, but merely as excitants to inflammation already existing. Their presence gives rise to irritation, augments, therefore, the hyperæmia of the part, increases exudation, impedes the exit of the secretion, and may in some instances produce entire obstruction of the ear channel by the

accumulation of these masses, together with casts of the epithelial layer.

Mrs. F., an elderly lady, came to my office complaining of an intense pain and itching about and in the ear. She stated that she was suffering from a third attack, the former two having been subdued by the treatment of a specialist. These attacks appeared at intervals of from four to six weeks. To quiet her sufferings and induce rest, she was obliged to use opiates in large doses. In examining the parts, I found the concha of the ear greatly swollen, rigid and covered with eczema in different stages. By touching the organ great pain was caused, radiating towards the inner structures. It was therefore an impossibility to introduce even the smallest ear speculum, especially as the aperture of the channel had been considerably reduced by the swelling. After two weeks' treatment, the swelling and pain had subsided, and finding herself very comfortable, she forgot to return so that I could examine the interior of the ear, which I had delayed thus far on account of the pain.

About two weeks afterwards, she reappeared in the office suffering from a new attack, presenting entirely the same symptoms as above mentioned. This time I was more explicit. I made her acquainted with what I supposed to be the cause of her trouble at the inner part of the channel, and told her that the only way to secure a complete cure was to destroy it in *loco*.

In brief, shortly afterwards I succeeded in introducing an ear speculum, and detected large masses of epithelial casts, intermixed with vegetable parasites, which revealed themselves under the microscope as forms of aspergillus. They were accumulated near the tympanum, and that membrane itself was dotted with insular groups of these fungi. A short anti-parasitic treatment relieved the lady from her trouble entirely.

VI.

INPREGNATION BEFORE THE MENSTRUAL EPOCH.

Reported by M. R RICHARD, M. D.

Mrs. P. J., born March 10th, 1842, married December 24th, 1854, making her age at marriage 12 years, 9 months and 14

days. Was fully developed, but breasts were small and she had never menstruated. On the 9th of September following she was delivered of a well-developed child, time of gestation 8 months and 15 days. One month after delivery, she menstruated for the *first* time, which lasted 7 days.

Menstrual function was absent from this time until after the birth of the second child, which was born October 16th, 1856, 1 year, 1 month and 7 days after that of the first.

From this date menstruation has been regular until about 15 months ago, when it suddenly ceased and has not since returned. Her general health has been good. She was married three times and had five children. In 1862, had a miscarriage. At no time was the menstrual flow profuse.

Reviews and Book-Notices.

The Diseases of the Liver, With and Without Jaundice, With the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By George Harley, M. D., F. R. S. Illustrated by colored plates and wood engravings. P. Blakiston, Son & Co., Philadelphia. For sale by Armand Hawkins, 196½ Canal street, New Orleans, La. [Price $5.]

This work is the result of twenty years of observation, experience, and chemical study, engrafted upon a former work of Dr. Harley, entitled, *Jaundice; its Patholog and Treatment, with the Special Application of Physiological Chemistry to the Detection and Treatment of Diseases of the Liver and Pancreas.*

Reversing the general order of things, we will begin by saying that the publishers have done their work well, not so much in the binding as in the paper and the type. That is to say, they have issued a book the physiognomy of which is at once pleasant and inviting. We confess to being impressed by the typographical features of a book. A single glance sufficing in most instances to determine whether it is interesting or otherwise. The first glance at the work before us was enough to catch our attention; a subsequent perusal has served to corroborate our theory, and to satisfy us that it is the outcome

of a mind that went to its task amply equipped therefor. It is the product of long thinking and ripe judgment.

What strikes us forcibly at the outset is the obvious conviction that the author is at home with his subject. He has no time to waste on idle conjectures; he has too much to say to indulge in useless guesses; he is too full of the main features of his subject to clog it with the theoretical labors of innumerable writers, although he takes occasion now and then to hit one of these a Cyclops blow.

One thing is certain: the author feels sure of himself, and this lends an air of dogmatism, at times, to what he says. Conscious of this fact, he says in his preface:

"In some portions of the volume the statements may, perhaps, appear to be rather dogmatic; if so, I may remind the censorious reader that this has arisen from the circumstance of so many old dogmas and deeply-rooted prejudices having to be combated."

The author sets out by telling a wholesome truth, which every body connected with the healing art—medical students, medical teachers, physicans in general—would do well to bear in mind. He denies that hepatic diseases are exceptionally difficult to diagnose, and intimates that the difficulty attending their defferential diagnosis is not so much on account of the uncertainty of symptomatology, as on the defective means used for unravelling them. He bluntly, and no doubt truthfully, affirms that no matter what may have been done in other directions, hepatic diagnostics is now where it was fifty years ago. For this state of things he very justly raps the clinical teachers over the knuckles, and rebukes them with the remark that they shirk the teaching of hepatic diagnostics from a consciousness of inadequate knowledge.

In the annual catalogues of the various medical schools in this country are published lists of text books. Henceforth we hope that Harley's Work on the Liver will be added to the list (to be read by the Faculty).

But to escape the insidiousness of comparison, we beg leave to say that, judging from a foot-note on page 34, the clinical teachers of Great Brittain might furbish up their acquirements

in regard to "the largest gland in the body" with decided benefit to the young men who get diplomas, and become legally qualified practitioners.

The author has a hard lick for those who lecture on "Functional Derangement of the Liver." He says the men who do this would scorn to be thought capable of prescribing for "mere palpitation of the heart," "bronchial expectoration," or "purulent urine," under the title of functional diseases of the heart, lung or kidney. After deprecating the habit which many otherwise enlightened practitioners have of prescribing empirically for symptoms in cases of liver diseases, he earnestly asks: "Have medical men, as a class, yet to learn that nothing in nature happens without a cause; that no symptom nor sign ever originates spontaneously; that every change in function, no matter however trifling it may be, is invariably preceded by a change in the material organization of some part or other of the tissues inducing it."

The first chapter closes with a shot at those short-sighted creatures known as anti-vivisectionists, in which plain, common-sense statements are made that are sufficient to convince any convincible set of human beings. This, by the way, is one instance where Dr. Harley wasted words. For ourselves, we are sometime over the idea that the anti-vivisectionists are amenable to reason. They belong to either one of two classes—fools or hobbyists. Dr. Harley's words on this subject were therefore wasted. The auditors whom they reach agreed with him beforehand; those for whom they seem to have been written have eyes that see not, and ears that hear not.

Chapter second deals at length with the chemical composition, weight, size and various secretions of the liver. The next chapter is concerned with the etiology of jaundice, but at the outset the author takes care to explain that he regards this merely as a symptom—in the same light as oxaluria and albuminuria. He then details the widely differing conditions under which it may arise, and reviews the theories of Frerichs, Murchison and Legg, in regard to its production, which are, briefly speaking—*obstruction to the escape of bile; abnormal*

diffusion; diminished consumption. He takes issue with these eminent men. His own theory in regard to jaundice, which he slips in calling a disease, is in short, a "mechanical obstruction to the passage of bile into the intestines, and the consequent reabsorption of the retained bile into the blood; and secondly, by a suppression of the biliary secretion arising from some morbid condition of the liver itself, whereby the biliary ingredients, from not being eliminated, accumulate in the circulation and stain the skin." We believe this is the older theory. We think it the more rational.

Passing by what is said in a general way about the symptoms and treatment of hepatic disease, we note that the author regards acetate of lead and opium as effectual "stoppers" of biliary secretion. Dietetics is treated of at some length, and the ground is thoroughly gone over in regard to the effect of various alcoholic drinks. According to our observation this is a part of medical knowledge wrapped in considerable obscurity. Those doctors who advise a toddy for the sake of the liver, would do well to read and ponder what the author has to say. From one piece of advice to invalids, however, we beg leave to dissent. On page 170 we read: "All stimulants should be given in small quantities, diluted with sparkling alkaline natural or artificial mineral waters." We object to diluting with *alkaline* waters. Fothergill says: "Alkaline waters are not good at meal times, they reduce the acidity of the stomach, which is essential to the digestive action in the said stomach." We think the truth lies with Fothergill.

For yellow fever is suggested the name of *contagious jaundice;* for that form of fever with yellow skin, but not contagious, *malarial jaundice.* The causes respectively are declared off-hand to be epizootic and malarial disease germs. This is making short work of a matter that has produced considerable bother for other pathologists. It is said, too, in a matter of fact way, that these diseases only originate *de novo* in tropical countries (p. 229). This is also making short work of the "de novo" doctrine.

That form of chronic malarial poisoning known throughout

the South as malarial haematuria, or yellow chills, is styled *paroxysmal congestive hepatic haematuria.*

Dr. Harley reminds his readers that this affection was first called attention to by himself in 1863, but from his description of the cases cited, it is evident that he has never seen anything of the disease in the virulent forms known to Southern physicians, a graphic picture of which is quoted from the writings of Dr. Jones, of this city. As might be expected, the readers of this Journal have nothing to learn from him in regard to the treatment of yellow fever.

Chapter XII is one of the best in the volume, and to us the most interesting. It enters at large into the differential diagnosis of hepatic from other kinds of colic. The amount of diagnostic acumen possessed by the author is made decidedly manifest, and he keeps you in mind of the fact that he knows, and wishes the reader to remember that he knows he knows himself perfectly competent to tell gall-pain from all the other belly-aches incident to humanity. But, seriously, the reader will be profited by an attentive study of the differential signs.

The chemistry of the excretions, about which the average physician knows far too little, contains a great deal of practical information. It lays down many means by which to examine and detect the various constituents of the excreta as aids to diagnosis.

The hints for determining the difference between renal, cardiac and hepatic ascites are all worth knowing and remembering.

Xanthelasma is regarded by the author as the bile-pigmentation of the contents of the sebaceous glands from prolonged jaundice. With such a theory the treatment of course would be frictions and alkaline lotions.

The book closes with a long chapter on "hints to aid in the diagnosis and prognosis of diseases of the liver." Most of the paragraphs are lettered, in order to put the matter as clearly as possible before the reader. We must content ourselves with this bare statement, hoping that those who read the book will derive as much benefit as ourselves, and feel that both author and publisher have rendered good to the medical fraternity.

A System of Human Anatomy, Including its Medical and Surgical Relations. By Harrison Allen, M. D., Professor of Physiology in the University of Pennsylvania, &c., &c. With a chapter on Histology by E. O. Shakespeare, M. D., Ophthalmologist to the Philadelphia Hospital. To be completed in six sections. Illustrated with 380 figures on 109 plates. Philadelphia: Henry C. Lea's Son & Co. For sale by Armand Hawkins, 196½ Canal street, New Orleans. [Price $3.50 per section.]

We are in receipt of Section I. on *Histology*, printed in the usual elegant style of the publishers. The introduction promises much, and if we are to judge from the section before us, the author's promise will be fulfilled.

It is the design of the author to present the facts of human anatomy, in connection with their bearing upon practice, and this combines necessarily to a certain extent the physiological with the anatomical.

Whenever found relative to the subject, *diseased action* and its *location* will be treated of and exemplified by authentic records of cases.

The scope of such a work is great and the ability and industry of the author lead us to expect that the result as forshadowed by the chapter on histology will be a success, and prove a lasting monument to the originator of so useful a work.

In the part before us the definitions are full and concise, and the descriptions plain and comprehensible.

We notice some innovations in nomenclature, and though at times somewhat vague, it is conspicuous in the laudable effort to systematize, and to prevent the confusion resulting from the useless multiplication of terms coined to suit the erudite ideas of many authors of the present day.

The microscopical illustrations of the tissues are well and handsomely executed and clearly defined, being the work of Mr. Hermann Faber, and engraved on stone from dissections by the author.

Combining as this book does the application of pathology to anatomy, it is a creditable departure from the usual "atlas of anatomy," and will be a valuable acquisition to every physician's library.

Besides the sections on anatomy, it is contemplated adding

sections on the "nature and variety of monstrosities," and "on the method of conducting post-mortem examinations;" also, others treating of subjects closely allied to, and having a bearing upon the structure of the body.

The Electrician :

We have received in exchange the December number of the *Electrician.* We happen to know that it is published by Williams & Co., 115 Warren street, New York, at $1 00 a year, but this knowledge we have without the aid of the periodical itself, for there is nothing on its face to furnish one with that knowledge. We say all this precursory to saying that the first page of the *Electrician* has an illustration, entitled, Sporting by Electric Light. We believe the sport is supposed to take place in France, we are not certain—we trust not in this country. The illustration represents a lot of "sports" disporting themselves by shooting at myriads of birds which the *Electrician* terms "Beautiful Tenant's of the Air." We are glad to see that the whole thing is depricated by the *Electrician.* That it regards such sport (?) from the point of view of a humane journal. Our readers will remember that the November number of this journal contained an article reprinted from the *Pacific Med. and Surgical Journal,* entitled, Grand Fun, Pigeon Shooting, and Vivisection. That article we endorse in full, and are of the impression that the editor of the *Electrician* does likewise. We cannot help feeling, however, that a different comment would have been made if that illustration had shown a number of scientists killing birds by electric light for the sole purpose of furthering the ends of science.

The Illustrated Quarterly of Medicine and Surgery :

No. IV. of Vol. II. is now before us, the other three having been noticed previously. The contents of this number are the following: Two Large Tumors of the Female Breast (2 illustrations), by W. T. Bull, M. D.; Sarcoma of the Pharynx and Neck (3 illustrations), by Prof. L. A. Stimson, M. D.; Double Equino Varus (1 illustration), by Prof. Lewis A. Sayre, M. D.;

Extraneous Microscopic Matter in Animal Fluids (4 illustrations), by E. P. Brewer, M. D.; Syphilitic Ulcerations in the Upper Air Passages (2 illustrations), by Carl Seiler, M. D.; Laryngo—Tracheal Diphtheria in an Adult (3illustrations), by Wm. S. Cheesman, M. D.; Case of Traumatic and Septic Empyema (1 illustration), by Prof. A. L. Ranney, M. D.; Thoracic Deformity resulting from Empyema (1 illustration), by J. E. Mears, M. D.; Case of Extra-Articular Tumors of the Hands (1 illustration), by Oliver P. Rex, M. D.

Each number contains four large colored plates, and enough wood engravings to fully illustrate the subjects, which are clinical cases never before published. The number of subjects treated in this volume are 30, with 99 illustrations and 104 pages of printed matter.

The editors (Dr. Geo. Henry Fox and Frederic R. Sturgis) announce the success of their venture as quite encouraging, and send a prospectus for 1883. Price $2 a number, or $8 a year; and furnished to annual subscribers only. S. S. H.

Reports of Proceedings of Societies.

THE NEW ORLEANS MEDICAL AND SURGICAL ASSOCIATION.

Meeting of December 23d, 1883, Dr. Olliphant presiding.

Dr. Dabney reported a case of death from opium in his own practice. He had ordered two drops of laudanum to be given a child at stated intervals. The mother had administered much more than this dose, producing narcosis, from which the child could not be aroused—the hypodermic use of atropia making no impression.

Dr. Dabney's case called forth a general expression in regard to opium poisoning, in which it seemed that the use of atropia therefor had resulted more often favorably than otherwise.

Dr. Czarnowski said that he had more than once prevented the fatal effects of *Mrs. Winslow's Soothing Syrup* by the use of Atropia and electricity.

Dr. Crawcour called attention to the use of fl. extr. ham-

amelis in epistaxis, applied by the hand-spray apparatus. He has recently had a case which resisted the use of plugging, Monsell's solution, etc., but yielded promptly to the hamamelis in spray.

Dr. Richard asked if the good effects might not be due to the form of application of the medicament?

Dr. Crawcour answered that the iron solution had been used in the same way to no purpose.

Dr. Mainegra gave an account of a case of Potts' fracture to which he had been called. He put on a temporary dressing and had the family physician sent for. The next day he met the physician in consultation. His diagnosis was confirmed, and a permanent dressing put on. A few days later he heard that the patient was walking about. He wished to know if such a thing were possible.

Dr. Parham replied that a case of the same kind had come under his observation. The dislocation was reduced and the fracture put up in liquid glass. The patient allowed this to stay on only a few days, during which time, wonderful to say, he stood on the broken leg and kicked with the other. After that, temporary appliances of little use were resorted to, and the patient went where he chose.

Dr. Watkins related a case of post-partum pain*, relieved by hypodermic injection of morphia and atropia combined.

This case, also, called forth several expressions as to the effectiveness of morphia and atropia combined.

Dr. Godfrey said, just now the members were controlling the effects of opium with atropia, and now they were controlling pain with the two combined. He did not deny the efficacy in either case, but he would be glad to hear the reasons for both lines of treatment.

Dr. Watkins replied, that he regarded atropia as a cardiac stimulant, and opium as a depressant. If this were correct, he thought the philosophy of the combination would be obvious to all.

Dr Crawcour thought the combination unscientific, that like a great many things in medicine, it had become the fashion, and the sooner left off the better.

* See page 603.

Dr. Herrick's remarks were substantially the same as Dr. Watkins' in regard to the combining of morphia and atropia. While speaking of fashions he begged leave to call attention to another, about which he should like to hear some expression of opinion. He referred to the practice now so much in vogue of prescribing calomel and bicarbonate of soda.

Dr. Holt said he had reason to know that the two together worked with great force. Some time since he had been called to a case of hypercatharsis, said to arise from eight grains each of the two medicines. When he first saw the patient he was completely laid out, as limp as a rag. He had never seen such violent purgation.

Dr. Crawcour said the reason for using calomel and soda in the same prescription was, that it took fewer grains to produce the desired effect. Two grains of each would answer better than double the number of the former.

Dr. Mainegra said, his explanation would be, that the sodium bicarbonate upon reaching the stomach would evolve carbonic acid, that chloride of sodium would be formed, which was of a purgative character; it being known that seamen frequently drank sea water for its laxative effects. The speaker added that he had omitted at the proper moment to say that he had sometime since treated a case of severe bronchitis in the person of a patient suffering from lepra by means of a blister, and would caution against breaking the skin in this way in such patients, as it would be almost impossible to heal it.

In answer to questions from Dr. Crawcour, Dr. Mainegra explained that he meant true leprosy.

Dr. Holt said that he would like to call attention to the instability of sulphurous acid as usually found in drug stores. Physicians in prescribing this preparation have no idea as to what they frequently receive in having their prescriptions filled.

He recently had occasion to prescribe sulphurous acid ʒ ss. to ʒvi water, as a gargle in a case of scarlatinal sore throat He followed his prescription to the drug store and after it was compounded, examined it and found that it did not contain an appreciable quantity of sulphurous acid. The druggist said

that the preparation had been of the proper strength, but had deteriorated, and was now nothing but a weak solution of sulphuric acid. On opening a fresh bottle of sulphurous acid and making the mixture as prescribed, it was found that a solution in that proportion was poisonously strong, and that of a *reliable* preparation 3j. to ℥vj. was as strong as could be tolerated by any patient. He had always been in the habit of giving an ounce of the acid in a six ounce mixture, and saw how he might injure his patient by a solution of this strength, when a properly preserved acid was dispensed. Would caution physicians as to the necessity of following their prescriptions for sulphurous acid to the drug stores and seeing personally that a proper preparation is dispensed. When so done, 3j. to ℥vj. is sufficiently strong.

Dr. Crawcour said that while experimenting chemically he had ascertained, and perhaps some of the gentlemen would be glad to know, that alcohol takes up from 75 to 100 parts of sulphurous acid, which it holds permanently without change. Of this the dose was from 5 to 20 drops suitably diluted with water.

MEETING OF NEW ORLEANS MEDICAL AND SURGICAL ASSOCIATION, JANUARY 6th, 1883.

Dr. Richard read a paper on "hypodermic medication." In the discussion which followed, *Dr. Crawcour* said, that he did not agree with the reader of the paper in his preference for large needles. He (Dr. C.), preferred small needles. He had never, in an experience of twenty-six years use of the hypodermic syringe, seen the small needle break as described. Fine needles produce little or no pain, and if a vein should accidentally be punctured, no harm would follow as would be likely to occur were large needles used. He was probably the first to use the hypodermic syringe in the United States as far back as 1856. As regards the much feared danger of the introduction of small air bubbles while making an injection, he was of the opinion that it was more imaginary than real. If we can introduce a liquid into a vein, surely no harm could result from the introduction of a minute quantity of air under the skin.

Should injections be made directly over the seat of pain, or at any point so that the solution is taken into the general circulation? Some contend that it makes no difference, but his experience has convinced him that pain is more rapidly relieved if the injection be made directly at the seat of pain.

Hypodermic injections of morphia are frequently followed by distressing nausea. If the solution be freshly prepared this will not occur; for, when solutions are old, change has taken place and there is a formation of apomorphia. This it is which causes the nausea. To prevent decomposition he has tried a large number of additions to solutions for hypodermic use. Camphor water failed; chloroform water hastened the decomposition of some solutions; oil of eucalyptus failed, and he has found that carbolic acid in the proportion of one per cent. is the best to prevent change and the formation of the penicillium. For this purpose no preparation is better than Calvert's No. 1.

Nausea and depression, after the hypodermic administration of morphia, can be prevented by the addition to the solution of a small proportion of strychnia (1-48 grain) which also acts as a stimulant to the respiratory centre and prevents danger from the use of the morphia.

Some ten or twelve years ago, saw a statement that the hypodermic injection of plain water would relieve pain almost as well as morphia. Gave a hypodermic injection of water to a gentleman suffering from colic, with no result but to produce intense and agonizing pain. Bernard and Nussbaum some years ago recommended the hypodermic injection of morphia before the administration of chloroform, and he has used it with good results, although not in a sufficient number of cases to justify a positive expression of opinion as to its merits.

In the beginning of an attack of cholera the hypodermic injection of morphia will frequently arrest the further progress of the disease. Remembers having used this method in a number of cases, giving $\frac{2}{3}$ of a grain and repeating if necessary. The cholera was aborted and the patients got well. In the stage of collapse of cholera has given injections of atropia which restored the pulse and warmth of body, but death resulted nevertheless.

A short time ago tested a large number of syringes and found the majority incorrectly graduated. Out of thirty-five tested found only seven correct. These were made by either Arnold of London, or Tiemann of New York. In Leiter's syringes the spaces between the markings which may be mistaken for minim graduation in reality measure two and a half minims and therefore in using this syringe this fact should always be borne in mind.

As regards the hypodermic administration of purgatives, has given one-half grain of aloin in fifteen minims of water. This was followed by three or four large bilious stools, but cannot say whether this was *post hoc or propter hoc.*

Has used pilocarpin hypodermically in the chill stage of malarial fever with remarkably good results. Recently saw a gentleman from Honduras, who was suffering from an intermittent fever which everything had failed to relieve, and he was requested to send a message as soon as the chill manifested itself. Did so, and a hypodermic injection of ⅓ grain of muriate of pilocarpin was administered with the effect of immediately aborting the chill and producing an artificial sweating stage. The fever did not appear and what was more remarkable, never returned.

Has used hyoscyamin in cerebral troubles. In two cases of mania, 1-60 grain of the drug relieved the patients, but rendered them incapable of muscular effort for some hours afterwards.

In sclerosis the hypodermic injection of five to ten minims of the solution of arseniate of soda produced good results. Nitrate of silver has been recommended for sciatica. Deep injections are made, these are followed by abscess, and as soon as the abscess is opened the sciatica disappears.

Has recently had made by Tiemann a syringe which holds but ten minims, and is graduated accurately to one minim. Prefers this, as it is more convenient and reliable for use than others in the market.

Dr. Meylor said that he had tried water as a means of allaying pain, and found that the pain disappeared immediately

after the injection, but very shortly returned. Does not think the introduction of air is productive of harm.

Dr. Crawcour said that, in order to prevent the piston from drying and becoming loose in the cylinder, he is in the habit of placing one or two drops of pure oil above the packing. This not only keeps it soft, but also acts as a lubricator.

Dr. Czarnowski said that the most certain means of preserving solutions was to use nothing but pure distilled water and excessive cleanliness. That is all that is requisite.

Dr. Crawcour said that, no matter how pure the water, or how careful one might be, every time the bottle was opened, there was a liability to the introduction of atmospheric germs, which would cause decomposition. Has kept for one year a solution in which there was a small per centage of carbolic acid.

Dr. Brewer said that the production of abcess was frequently inexplicable. Had occasion to use the syringe four times in one night, and abcess was produced in one of his patients while the other three were free from any bad effects. It surely could not have been due to the character of the solution as the same was used with all four patients.

Dr. Mainegra said that he had a patient who was suffering from aneurism, and who had been taking hypodermic injections of morphia daily for four months, and was literally covered with marks of punctures from head to foot, yet no abscess had been produced. Always carried morphia in powder and made his solution as it was needed, and by thus having a fresh solution had never seen abscess follow.

Dr. Von Gohren said that he always prepared his solutions with simple distilled water, and finds that they keep better than by any other method. While in Strassburg witnessed the hypodermic injection of a solution of camphor and ether, with good results in collapse.

Dr. Mainegra said that no solution would keep any length of time without undergoing change, no matter what was used to prevent it—carbolic acid or anything else.

Dr. Crawcour took issue with the last speaker saying, that he has failed to find any change upon close microscopical ex-

amination, in solutions with carbolic acid as before described. Has had no difficulty in keeping a solution of atropia in this manner twelve months.

Dr. Salomon said, that, he was in hopes some gentleman would have said something about solutions of quinine for hypodermic use. Dr. Bartholow, in the last edition of his work upon this subject, gives the formula for a solution of the bisulphate with dilute sulphuric acid and carbolic acid. Would be afraid to use this solution for fear of producing abscess, as it contains an excess of acid and all acid solutions are very liable to produce abscess. In 1875 made some experiments upon animals with solutions of quinine differently prepared, and found that a solution with carbolic acid did not produce abscess. In using the syringe, always made the injections deep into the muscular tissue. This method produces less pain, and he has never seen it followed by an abscess. Has seen used, and has himself used the injection of morphia before beginning the administration of chloroform, and has found that anæsthesia was more rapidly and easily produced, and the patients stood the operations probably better than if the morphia had not been given. Always uses Wyeth's tablets. Finds them easily soluble, and has always in this way a fresh solution.

Dr. Czarnowski said that, a solution of the chlorohydrate of quinia was free from the danger of producing abscess, and should be used in preference to other preparations of quinia.

Dr. Meylor said that, he had read somewhere that a good way to administer quinine was to make the solution in hot water, and inject immediately.

Dr. Czarnowski said that, this method would be certain to be followed by abscess as the quinine would crystalize in the tissues, and produce irritation and inflammation.

Dr. Holt said that, he always carried and used Wyeth's tablets, and found this to be the best way to avoid decomposed or altered solutions. They can be very easily dissolved in clean water heated in a spoon, and are always ready for use.

Dr. Richard said that, his objection to fine needles was that they frequently break or bend, especially if the patient should

move suddenly during their introduction. Has had this accident occur. Prefers the use of the tablets as stated by Drs. Holt and Salomon. In the treatment of syphilis by the hypodermic method, prefers the albuminate of mercury, or albuminous solution, which was recommended by Neumann, as follows:

White of egg	200 parts
Water (distilled)	178 "
Common salt (saturated solution),	60 "
Corrosive sublimate (5 per cent. solution),	60 "

Of this solution thirty minims contain 1-16 grain of the sublimate. Has seen salivation follow one centigramme doses of sublimate. Prefers the albuminate to the iodide of mercury. Has used the gelatine disks prepared by Savory & Moore, of London, but finds them very difficult of solution.

Publications Received.

The Diseases of the Liver. By George Harley, M. D., F. R. S. P. Blakeston, Son & Co.

Some Thoughts on Phthisis, with special reference to the value of Lanyingeal Symptoms in Diagnosis. By M. F. Coomes, M. D., Louisville, Ky.

Spinal Deformities, etc. By Edward Bork, M. D., St. Louis.

Report of Board of Trustees of the Arkansas State Lunatic Asylum. Sanuary, 1883·

Suicides in New York City; during the eleven years, Dec. 31, 1880. By Johu T. Nagle, M. D.

Medical Items.

Three Successful Cases of Sponge-grafting; with Remarks.*—*Case* 1.—In the January of 1881, a boy, aged 11, tied a piece of cotton three or four times round his penis, two inches from the abdominal wall. Great swelling followed,

*Read before the South-Western Branch.

completely obscuring the cotton. He was treated by a surgeon with cold water compresses, and the swelling was much reduced; but during this time, the cotton became completely embedded in the tissues, and finally cut through the urethra. In June, the urine, which for some time had been passing in diminished and irregular flow, found its way through two small apertures in the upper surface of the penis, and gradually the distal part of the urethra (*i. e.*, the part beyond the cotton) became almost impermeable, so that, when I first saw him, on November 24th, 1881, hardly any urine was coming the natural way. At this date, a piece of cotton was projecting from one side of the old cicatrix which it had formed as it cut its way through; and there was a deep fissure on the upper half of the penis, extending down nearly to the urethra, and at right angles to it. As I could pass no instrument of any kind into the bladder, I determined to operate, and on the following day (November 25th) chloroform was administered, and I cut down through the upper cicatrix into the urethra, which appeared gristly, tortuous, and closed; and instead of being a pliable tube, was composed for an inch and a half of a semi-cartilaginous cord. Having dissected through this, I passed a No. 6 catheter from before backwards, till it came out at the incision. Then came the difficulty of getting it into the bladder, for there was still a stricture, or rather a mass of hard cartilage-like substance, where the urethra had been, behind my incision. I therefore cut into the urethra from below, behind this mass, and passed a catheter forwards until it came out at the first incision. Then, having divided this part of the stricture, a No. 6 gum elastic catheter was passed into the bladder, and tied there. Lastly, I pared the edges of the upper fissure in the usual way, united them with silk sutures, and covered the wounds with dressings steeped in an alkaline solution of creasote. On the 26th, the boy's temperature was 100.6° Fahr.; and on the 27th, 99.6° Fahr.; on the 28th, it was 98.6° Fahr.; and there was no subsequent rise. On the 29th, I found that he had moved the dressings, and allowed some urine to trickle over the wounds; and in spite of the greatest care, the incision on the under surface, which was granulating nicely before this, began to slough over a surface rather larger than a sixpence. I then determined to see whether I could obtain healing without loss of superficies, by means of sponge; so, having applied a solution of zinc chloride on the 29th, I arranged flat pieces of fine Turkey sponge on December 2nd, cut in irregular shapes, and nearly a line in thickness, so as to exactly fill up the wound, and fit under the edges of it wherever these projected. The sponge was covered by gutta percha, this by lint, and the whole kept firmly in place by a strip of India-rubber plaster round the penis. In four days, the sponge adhered, and bled when pricked, and by December 28th the wound was whole,

and the sponge entirely absorbed. The catheter was taken out on December 9th, and the urine passed the natural way in a good full stream, the boy remarking that he made water now as well as ever he did. The upper wound healed without any sponge. I advised the boy to come to me, and have a catheter passed occasionally, as it was probable, under the circumstances, that stricture would otherwise eventually result; but I have not seen him since January 18th, 1882, when he was perfectly well. There was then a very slight depression where the sponge had been inserted, and the cicatrix was sensible, thought not acutely, to the the prick of a needle. He would not allow me to pass a catheter, though I was anxious to do so, to ascertain the state of the urethra.

Case 2.—This was not so interesting in its previous history as case 1. A workman had one side of the terminal phalanx of his left forefinger shaved off by a plane, a clean cut surface being left. When all bleeding had ceased, I applied to this surface a single piece of sponge in the same way as in case 1; and the finger was sound by the end of three weeks. The only difference in the two cases was that, whereas in the former there was a very slight and doubtful odor of putrefaction on the day after application, in this there was a distinctly putrefactive odor for a week after the sponge had been applied, and adhesion took place on the third day instead of the fourth. In both cases, the sponges were saturated with clear watery discharge on the second day.

Case 3.—On April 14th, 1882, a girl crushed the end of her middle finger in a turnip machine. There was extensive destruction of skin, and I had to remove part of the terminal phalanx. The wound was dressed in the ordinary manner, but, owing to the loss of so much skin, the wound healed very slowly. On May 5th, therefore, I applied sponge, and dressed it every two or three days until June 1st, when the finger was completely healed, and the sponge absorbed.

Remarks.—The sponges used were the finest grained Turkey I could obtain. They were boiled in a weak solution of hydrochloric acid for some hours, and then steeped for half a day in a strongly alkaline solution of creasote. Before application, they were rinsed in hot water, and cut in very thin slices; and the wounds were syringed with the same antiseptic solution in which the sponges had been immersed, in which also were dipped the gutta-percha and lint. A single layer of each material was applied in the following order—sponge, gutta-percha, lint—and the whole was covered with a broad strip of India-rubber plaster, applied so as to secure firm pressure. In conclusion, I may remark that I have observed that, unless firm pressure over the sponge be used, the granulations will push the sponge away, instead of growing up through its substance. There are two sets of cases in which I have noticed this adhesion of sponge, where no such adhesion has been intended: 1.

Where bleeding cavities have been plugged tightly with sponge, as in excision of the eyeball; 2. Where sponge-tents have been used to dilate the cervix uteri, and have been unavoidably left in longer than usual. In both these sets, firm pressure is probably a *sine quâ non* in obtaining adhesion.—*T. Sanctuary, M. D., in British Medical Journal.*

On A Modification of Sponge-grafting—In the *Edinburgh Medical Journal* for November last, Dr. Hamilton, now Professor of Pathology in the University of Aberdeen, brought before the profession a method for treating certain wounds, which he, with some appropriateness, named "sponge-grafting." Prepare a piece of a sponge after certain directions, fit it into a depression in the soft parts, and, ultimately, the foreign body will be replaced, and the gap occupied by newly organized tissue; such was the teaching of Dr. Hamilton, and a number of successful cases were cited in demonstration. The theory of the originator is that the force of the blood-current causes an upheaval of the vessels lying on the surface of the wound, and that if a proper support is furnished, new growth will take place in the vessels and cause them to reach still higher levels. Blood-clot or fibrinous lymph supplies this support in many natural processes; a piece of sponge may be made to serve the same purpose. The sponge, having fulfilled this mechanical function, in virtue of its organic nature then undergoes disintegration, and may either be absorbed or discharged gradually.

I selected a piece of fine Turkey sponge, and treated it as instructed, by steeping in dilute nitro-hydrochloric acid, then washing with liquor ammoniæ, and finally setting aside in a one-to-twenty solution of carbolic acid. Some weeks afterwards, I chose an opportunity of testing sponge-grafting, though not in a crucial degree. A man was admitted to this infirmary who, having received a horse-kick on the shin three years before, sufficient only to produce an abrasion of the skin at the time, by incredible neglect had allowed a progressive loss of tissue to go on till an ulcer of the following characters presented. The sore extended almost round the calf, its width varying from two to five inches, its surface was sloughing, discharging profusely, and smelling offensively; the skin around was firmly bound down, and presented an irregular but hard margin to the sore. The man had gone on submitting to matters so long that the knee and ankle-joints were fixed at an angle implying great lameness, while the greatest circumference of the calf was nine inches, as compared with thirteen and a half inches at the corresponding level of the other leg. Measures were successfully employed to produce a clean, and latterly a richly vascular surface. The level of the sore was now for the most of its extent almost that of the body surface, but at one angle a deeply scooped depression, its dimensions

about an inch by an inch and a half, presented. The case was admitted under the care of Dr. J. P. Bramwell, under whose supervision the following treatment was followed out. To the part level with the skin, particles of skin were transplanted, and the results, save at a portion to be hereafter described, have been thoroughly satisfactory. To the hollow referred to, I adapted a piece of prepared sponge fully a quarter of an inch in thickness. Three days afterwards there was adherence of the sponge, and any attempt to detach it produced abundant bleeding. I shall not describe the obvious changes which took place during eight weeks I made daily observations upon the case. Suffice it to say, they confirm in a rough way the statements given with such careful detail in Dr. Hamilton's paper. One fact I may note, however, as favoring a conclusion opposite to that of Dr. Hamilton on the subject of nerve-supply, he not believing in the production of nerve-tissue at an early stage. I pricked the most superficial portion of the new growth from time to time with the point of a needle, and I asked medical friends to do the same, and pain was most certainly felt by the patient on every occasion. At the same time, Dr. Hamilton's far more extended observations entitle his evidence to regard, which I cannot claim for mine. Watching the progress of the case from day to day, a fact which strongly impressed me was that a very protracted period is necessary before organization can encroach to any extent upon the sponge area. Within three days of application, there is firm union between the living tissues and the sponge. We could hardly expect the vessels to continue their invasion at the same rate afterwards. A physical law may have largely to do with starting the process, which afterwards becomes more purely dependent on vital phenomena. In my case, nearly two months after the application, I was able to remove the superficial part of the sponge with the scissors to the extent of nearly half the original thickness before I encroached on newly vitalized tissue.

In the meantime, another opportunity had been presented me for sponge-grafting, and the issues in this case were peculiar. Dr. Graham, of this city, asked me to see a private case of an ulcer of three months' standing, during which period it had baffled all ordinary methods of treatment, and to decide if the new method might be resorted to. The sore lay over the lower end of the tibia; its size was that of a half-crown; its surface was exsanguine and hard; and its edges were tightly drawn down towards its floor. As a preliminary to further proceedings, caustic was used to the margins, and a strongly stimulated lotion applied twice daily for two days to the surface. The latter proceeding had no appreciable effect. Scratching with the end of a scalpel was now resorted to, until a freely bleeding surface resulted. A bit of sponge was then applied, and kept bound on for three days, when it was found to have

united. In three days more, the patient complained of much pain extending up the limb, and the appearance of erysipelas were found spreading from the ulcer upwards. The patient declared himself subject to idiopathic erysipelas. These indications were judged as advising removal of the sponge, and the act produced considerable pain and hæmorrhage. A subsidence of the diffused symptoms took place immediately. As regards the ulcer, the changes were specially noteworthy. What had been the type of indolence and obstinacy among such sores was now the picture of healthy action—the surface abundantly vascular and standing well up towards the level of the skin. The simplest dressings were now sufficient to promote repair; and in three weeks from employment of the sponge recovery was complete. What was the cause of this sudden change? Was it the erysipelas, or was it a foreign body having simply an irritant action, or that affecting an action peculiar to itself? In any case, the sponge was a factor in the process, and deserved further employment.

To return to the first-mentioned case. At one portion of the sore under treatment by skin-transplantation, retrogressive changes set in, and became most persistent. Successive sloughs followed one another until there remained an almost circular gap of fully an inch diameter, with edges abruptly punched out to the depth of over a quarter of an inch, and its floor, which lay close to the bone, of white fibrous-looking structure. Into this depression, after having used a knife to the floor, as in in the other case, I fitted a piece of prepared sponge. Two days effected the same union as before. On the fourth day, I forcibly elevated half of the sponge—pain and bleeding again the accompaniments—and snipped off this semicircle with the scissors. The exposed part left presented highly vascular tissue, reaching well up towards the body-surface as compared with the former depth. In four days more, the remainder of the sponge was detached, and its site was seen to be occupied by a level of new tissues, very slightly higher than the other half. The deficiency left below the level of the skin was soon made up by unaided natural processes, small particles of transplanted skin were applied, and in the end nothing remained to indicate a spot treated differently from parts around. The portion of the ulcer to heal most slowly was that where the sponge was originally applied. I should have removed the whole graft here, as in the other instances, but successive shavings from its surface, in the manner before alluded to, had left only the deep portion, which was now incorporated with the new tissue or disintegrated. Skin-grafts, it was noticeable, were slow to attach to this area, but eventually they became reconciled to it, and the result was a complete cure.

My experience of Dr. Hamilton's proposals has thus been comparatively limited, and I leave to wider observation upon it to

yield more conclusive evidence as to its general efficiency. I venture to recommend, however, a recourse to the modified or temporary sponge-grafting—if *grafting* is, indeed, a correct expression to apply to the method I have found useful—for at least certain varieties of breach of tissue.—*James Ferguson, M. D., British Medical Journal.*

In the *Journal of Cutaneous and Venereal Diseases* for Dec., 1882, Dr. P. A. Morrow, in reply to the question: "Is it possible, by excision of the initial lesion, to destroy the syphilitic virus and prevent infection of the general system? sums up as follows:

1st. That the facts of clinical experience, as well as deductions from analogy and experiment are opposed to the theory of the local nature of chancre, upon which the practice of excision is based.

2d. That the practice of excision of the chancre, as a means of aborting syphilis, is condemned by its clinical results, when these results are weighed in the balance of discriminating judgment, due regard being had to the possibilities of error.

3d. That these sources of error are comprehended under doubtful diagnosis, insufficient observation, both as regards time and method, and *post hoc* conclusions.

4th. That in cases where secondary accidents fail to appear after excision, there is no positive evidence that it had an abortive influence, since experience proves that sores with all the typical signs of infecting chancre are sometimes not followed by constitutional syphilis.

5th. That there is no evidence that excision of the chancre attenuates the syphilitic virus and modifies the intensity of general symptoms, since the benignity or malignancy of syphilis is a matter of individual constitution.

6th. That it cannot be recommended as a local adjuvant, since it is opposed to the principles of sound surgery to remove by an operation, involving loss of tissue and an indelible cicatrix, an accident which always disappears by a process of spontaneous resorption, leaving, as a rule, no posthumous evidence of its existence.

The Internal Administration of Iodoform in Constitutional Syphilis.—Mracek (Monatsh *f. prak Derm*) gives the results observed, some three years ago, in a large number of hospital cases, from the internal use of iodoform under the direction of Prof. Sigmund; the object being to ascertain, first, the *effect of the medicine, when thus administered, upon the progress of syphilis*, and secondly, *its proper dose* in such cases.

Freshly prepared pills were made use of, each containing o. 1 (1½ grains) of iodoform. In the eruptive stages of the complaints, it was employed chiefly against insomnia, and the pains in the head, limbs and respiratory muscles.

The favorable effect of *iodine* on these symptoms being borne in mind, much was naturally expected of the iodoform containing 95·8 per cent. of that element. The action of iodoform in small doses (0.5) was found, however, to be far from prompt in any case, and it sometimes failed to exert any sedative influence whatever. On the other hand larger doses (1.0 and 1. 5) while operating with more certainty as narcotics, sometimes gave rise to very disagreeable affections of the head.

The secondary manifestations of syphilis, as maculo-papular eruptions, papular syphilides on the genital and anus, papulæ in the mouth, pustules on the hairy scalp, iritis, palmar and plantar psoriasis, etc., proved still more refractory under this mode of treatment. In most of these cases it was necessary to fall back upon mercurial inunctions, either to shorten the course of the original disease or to combat the effects of the iodoform. Even when the latter was tolerated so that its administration could be continued to a cure, the patient's general condition was less satisfactory than when mercury was relied on.

The course of the disease in the gummatous stage was more favorably influenced; but unfortunately, and owing to increased debility, the remedy was less easily borne than at an earlier period, and often produced such troublesome symptoms as to compel its speedy discontinuance.

Gastric disturbances were the most frequent results from the administration of iodoform. A daily dose of one gramme almost uniformly gave rise to a loss of appetite, nausea and vomiting, and sometimes to diarrhœa. Less frequent, but equally characteristic effects were a persistent drowsiness; vertigo and feelings of intoxication; hebetude and pressure in the head; general excitement, occasionally with accelerated action of the heart-acne (after ten, eleven, thirteen, thirty-four days treatment); scraping in the throat, cough, acute catarrh of the fauces, and also of the conjunctiva, more rarely, bronchitis.

Lastly, when these conditions did not obtain, after taking the iodoform for seventeen to thirty-five days, a feeling of debility and faintness was sometimes experienced, and the patient became pale and lost flesh.

The author decides that the internal administration of iodoform is unadvisable in the treatment of syphilis, both on account of its uncertainty as a curative agent, and the disagreeable symptoms so frequently attendant on its use. On comparing the preparation of iodine hitherto most frequently employed, viz., iodide of potassium, containing seventy-six per cent. of iodine, with iodoform containing ninety to ninety-five per cent., he arrives at the following conclusion:

Both operate by virtue of their iodine. The iodoform, however, is seldom tolerated, for many days together, in doses as

large as 1.0 *pro die.* This is scarcely ever the case with iodide of potassium. The iodide, therefore, as not affecting the appetite, and less frequently giving rise to gastric disturbances in general, is far preferable to iodoform in the treatment of syphilis. If reduced doses (0 5) of iodoform are resorted to, a much smaller quantity of iodine is supplied to the organism than when iodide of potassium, in the easily borne dose of 1.0., is administered. The author would hardly venture upon the 3.0 doses of iodoform employed by Nunn. The most frequent secondary effects from iodide of potassium, viz., acne and catarrh are, it is true, more readily caused by iodoform; but are sometimes observed even after the exhibition of the latter. —*Journal Cutaneous and Venereal Diseases*, Jany., 1883.

Dr. John A. Wyeth has recently performed a successful litigation of the common carotid with the freshly carbolized sciatic nerve of a calf. The patient dying some six weeks after from her malignant disease, the artery was found entirely occluded, its continuity unbroken, and only a scarcely perceptible depressed ring at the point where the ligature had been. Dr. Wyeth urges for nerve tissue as a ligature that "it is easily obtained, is very strong by virtue of its neurilemma, and is soft and cushioned, since its cylinders of neurilemma are filled with the white substance of Schwann." If the reader will turn to a recent editorial in this JOURNAL on nerve-stretching, [1] he will obtain some idea from the table there given as to the strength of nerves, the sciatic requiring a weight of 84 kilogrammes to rupture it, the radial 27, and even the little mental branch of the Fifth Pair some 2½. It is again an instance of nerve surpassing gut.—*American Journal of Neurology and Psychiatry.*

BOILER-MAKER'S DEAFNESS AND HEARING IN A NOISE.—Dr. Holt ("Trans. of the Am. Ophth. Soc." iii, 1, 1882) has examined the hearing and ears of a large number of boiler-makers. He found that several of these men could hear the tick of a watch when pressed against the auricle, when they could not hear it from the mastoid or the temple. When placed vibrating in the centre of the teeth or vertex, the tuning-fork was invariably heard better in the poorer ear. The length of time the tuning-fork was heard by bone conduction indicated that the deafness was not due wholly to the effects of the concussions upon the nerves, but that it was principally due to the effects of the occupation upon the conducting apparatus of the ear, since they heard the tuning-fork, when placed vibrating in the centre of the teeth, as long as or longer than the normal ear, and also longer in the deafer ear for aërial sounds. The more Holt examined these men, the more

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[1] May, 1882, p. 215.

he was impressed with the idea that the impaired hearing was due much more to the condition of the conducting apparatus than to an impairment of the central perceptive apparatus of the ear, and also that there was a direct bone or tissue conduction of sound to the nerve. In all, the membrana tympani showed about the same changes that are observed to have taken place in chronic catarrhal otitis media. The nasopharynx was invariably in a catarrhal condition. The Eustachian tube was patent in most of the cases. He thinks that those patients who claim that they can hear better in a noise are inexact in their observations, and labor under a misapprehension of facts. In reviewing the results of the examination of the men who are employed in making steam-boilers, Holt finds that all thus engaged become more or less deaf, the degree and length of time elapsing before this occurs depending somewhat upon the tendency of the middle ear to take on catarrhal inflammation. The deafness and condition in which the organ of hearing is found does not differ materially from that of chronic catarrhal otitis media, since it is produced by a similar cause, and is due much more to a defect in the conducting apparatus of the ear than to the perceptive part of the same organ, the exciting cause of the deafness being traceable to the constant agitation of the joints of the ossicles, thereby exciting inflammation of these structures, and producing more or less anchylosis of them, particularly of the stapes.—*N. Y. Med. Journal*, Jan. 13, 1883.

Reliquet's Injection for Chronic Cystitis.— According to *L'Union Médicale*, this consists of crystallized phenic acid, dissolved, with the aid of a sufficient amount of alcohol, in from one thousand to two thousand parts of distilled water. Properly prepared, it is said to give rise to no pain, but to act as an astringent, modifying the denuded surfaces and hindering absorption. After having washed the bladder out with water of the temperature of the body, the solution is injected very slowly, until the bladder is well distended, so that the liquid comes in contact with every portion of its interior. The injection is then allowed to flow out, and the organ is again washed out with warm water.—*N. Y. Med. Journal.*

Autogenesis of Cysticerci.—A case was recently reported before the Société Médicale des Hôpitaux of Paris[1] of a man having fifteen or twenty cysticerci (of which one, excised for purposes of diagnosis, revealed the characteristic hooklets of the parasite). The peculiarity of the case consisted in the fact that the individual had passed links of tapeworm about a month previous to the appearance of the first cyst, and two months after this had gotten rid of the whole of

(1) L'Union Médicale, December 12, 1882.

a tænia solium. The reporter of the case believed that the person had become affected with the cysts from his own tænia without the reception of the ova in another animal, which is ordinarily supposed to be necessary to the complete cycle of development. Authorities are cited to show that antiperistalsis, vomiting, etc., may convey the proglottides of the parasite from the intestine into the stomach, and as the action of gastric juice is alone necessary for the liberation of the ova, the individual thus may ingest accidentally the ova expelled by himself. That the complemental portion of the cycle may occur without the intervention of the swine or any other animal is demonstrated by an enthusiastic student of helminthology, who swallowed four cysts taken from a human cadaver, and in three months and two days first noticed the appearance of proglottides in his stools, which were demonstrated later to belong to the tænia solium.—*Boston Med. and Surg. Journal.*

Treatment of Puerperal Mastitis by Iodide of Lead Ointment.—In the *American Journal of Obstetrics*, Dr. Thos. T. Gaunt expresses his disappointment at the ill success of belladonna in checking the secretion of milk, but reports good effects from iodide of lead. He says:—

"The breast being thoroughly dried and perfectly cleansed, we smear its surface with the officinal ointment of the iodide of lead, and then gently rub it in until a considerable quantity is absorbed. Soak a piece of sheet-lint, of a size sufficient to cover the breast, in the following solution: Acetate of lead, from ʒij to ʒss to the pint, of a one-to-four solution of alcohol. If we desire a more elegant preparation, eau de cologne may be substituted. If there be much pain it is often well to apply an ice-bladder upon the sheet-lint covering the breast. The lint should be frequently dipped in the lead lotion. The following phenomena will present themselves: First, a cessation of pain, fullness and uneasy feeling of distention, which is so annoying. It is common for the patient, who has been exhausted by pain and consequent loss of sleep, to fall into a refreshing slumber even after the application is made. In the course of three or four hours the breasts may be completely emptied by an experienced hand. The ointment should be used as a lubricant during the manipulation. By applying the iodide freely twice or thrice, daily, the secretion will be gone in less than one week, as a rule. The pivotal point in the treatment is the use of this ointment; the evaporating lotion and cold being only adjuncts. I have proved by repeated trials that, when applied alone, it is capable of exerting an absolute control over the secretion. I believe we here invoke a specific action from the lead iodide. A point of considerable moment is the partial anæthesia it is capable of inducing, which thus enables us to empty the glands, where before even slight pressure was badly borne. Its action without doubt

extends to the epithelial cells and inhibits their secretory activity, as is seen in its action, in cases like the above, in causing the drying up of the secretion."—*Boston Med. and Surg. Journal*, January 18th, 1883.

Bacillus Tuberculosis.—So far we have had nothing to say in regard to Dr. Schmidt's paper on the bacillus tuberculosis, contributed to the *Chicago Medical Journal and Examiner*, being content to stand by and watch how others would receive the investigations of a pathologist distinguished as much for care and caution, as he is for skill and experience.

Not being microscopists we can take no part in the controversy, consequently our opinion can have no weight with science; but we have tried to keep open ears for the opinions of others, feeling not only a laudable desire to get at the facts, but to observe how the work of our learned fellow-citizen would bear criticism. It is not likely that we have seen all the comments, but of one thing we feel pretty sure, that nothing whatever of a controversial character has been offered in refutation, possessing the dignity and scientific spirit that imbues the statements of Dr. Schmidt.

As already intimated, none but microscopical experts are entitled to an opinion, but we beg leave to obtrude our intuition, that the time is not far off when it will be found that the paper of Schmidt has done for the bacillus of Koch what the sparrow of nursery fame, did for Cock Robin.

Treatment of Oxyuris Vermicularis and Lumbricoid Worms in Infants.—One of the best treatments for the oxyuris is the officinal lime water administered every evening for five or six days in injections containing 100 or 200 grammes (3 to 6 ounces) of the lime water. West adds to these injections 5 to 8 grammes (75 m. to 3 ii) of the tincture of the perchloride of iron, which insures a more certain result. The preparations of mercury can also be employed in the form of suppositories according to the following formula:

Unguent: Hydrarg: 0.05. (1 gr.)
Butyri Cacao q.s.

Recourse may also be had to the *Liquer de Van Swieten* (gr. x. of corrosive sublimate to 0i brandy) in the dose of 25 milligrammes (about $\frac{1}{3}$ grain) of the sublimate for an injection of 100 grammes of water. When the worms are situated above the rectum it is necessary to attack them through both extremities of the digestive tube, by giving santonin by the mouth in addition to using the injections.—*Gazette Médicale de Nantes.*

The Lousiana State Medical Society will hold its next meeting at Shreveport, La., on Wednesday, April 4th, 1883.

The *Medical News* of December 30th, 1882, publishes the following from its special correspondent at Charleston:

"THE EPIDEMIC OF BREAKBONE FEVER which had prevailed here has disappeared completely with the presence of ice. *This shows its relation to yellow fever.*"

The last sentence was penned in a matter of fact way; as if a piece of logical condensation had been moulded into shape. Don't be misled by the italics—they are ours. Relation indeed! Agues generally tone down considerably with the "presence" of ice. Does that show their relation to breakbone fever? Surely, since the published researches of Schmidt, of New Orleans, there is enough actual knowledge in regard to yellow fever to prevent one's coupling it even remotely with dengue.

From circular received from C. Lange, Secretary-General of the International Medical Congress, we learn that the 8th session of the International Medical Congress will be held at Copenhagen, Denmark, August 10th, 16th, 1884.

From the *Wien. Med. Wochenschrift* we take the following: There died not long ago in the "Rochus-Spital," at Buda-Pest, a woman aged 70, in whom was found, at the autopsy by Professor Schenthauer, no spleen. This observation is interesting from the fact that not through any gradual absorption or disease was it absent, but that it never existed.

The report of the special commissioner for inquiring into the existence of color-blindness, shows that out of 1082 railway employés examined, 251 were totally color-blind, and that 32 were partly so,—making 2½ per cent. incompetent to recognize color signals, and, therefore, unfit to perform their duties.

The commissioner reports, furthermore, that 6 per cent. of those attending the naval schools were unable to detect the color-signals used in naval practice. As usual, the chromatic sense was found more defective in males than females.—(*Cronica Oftalmologica, Cadiz.*)

MEDICAL NEWS.

MORTUARY REPORT OF TEXAS PHYSICIANS DURING THE YEAR 1882.—

Dr. John A Herff, died at San Antonio, January 7; probably of trichinosis.

Dr. R. A. Christian, Winchester, Fayette county, January 9; from injuries caused by fire-crackers.

Dr. John A. Aschom, Columbia, Brazoria county, January 21; malaria.

Dr. Klaessen, New Braunfels, January 19, cause not given.

Dr. Cummings, El Paso, in February; killed.

Dr. J. M. Cox, Gonzales county, March 9; killed by a fall from his buggy.

Dr. J. J. Gregory, Corpus Christy, March 23; paralysis.

Dr. F. C. Lawrence, Kerrville, Kerr county, March 24.

Dr. John Tarleton, Hillsboro, Hill county, March 26; senility (aged 81 years).

Dr. Philip Gresham, Fort Worth, March 27; cause not stated; aged 38 years.

Dr. Holman, Graham, Hill county, April 8; small-pox.

Dr. W. H. Montgomery, near San Antonio, Bexar county, April 28; cause unknown.

Dr. J. F. Lindsay, Lampasas Springs, May 1; cause unknown (stranger from Missouri, his remains carried there for burial).

Dr. Jos. B. Baird, Dallas, May 22.

Dr. M. W. King, Decatur, Wise county, July 27.

Dr. Alexander Hamilton, Corpus Christi, July 16; apoplexy.

Dr. R. A. Dodge, Colliersville, July 20.

Dr. G. K. Young, Bastrop county, August 3; died in Galveston from effects of chloral.

Dr. Lawrence A. Washington, Denison, August; cause not stated.

Dr. Bailey, Riddleville, Karnes county, September 3; cause not stated.

Dr. C. Atchley, Alvarado, Johnson county, September 3d; died at Bryan, Brazos county; heart disease.

Dr. D. B. Gatewood, Cleburne, Johnson county, September 19; conjestion of stomach.

Dr. James Nowlin, Prairie Plains, Grimes county; September 19; aged 60 years.

Dr. H. Th. Schultz, Victoria, Victoria county, October 10; cancer of stomach and hemorrhage from stomach.

Dr. Thomas E. Bowdre, Palestine, Anderson county, October 7; general conjestion; aged 63 years.

Dr. Joel W. Terrell, Navasota, Grimes county, October 21; took an overdose of morphine by mistake; aged 77 years.

Dr. C. L. Smith, Orange, Orange county, October 23; fell dead.

Dr. I. E. Smith, Garden Valley, Smith county, November 27; septicæmia, from gin-saw wounds on his hand.

Dr. F. Bracht, San Antonio, December 16; unknown cause; aged 73 years.

Dr. W. S. Skinner, was shot from the bushes.

Dr. A. Durr was shot by highwaymen, December 18, near Burnet, Burnet county, and he died on the 22nd of December from the wound.

Dr. — Ikard, of Henrietta, Clay county, died in Jefferson, Texas, Dec. 30th, 1882, of pneumonia; aged about 60 years.

The New Orleans Medical and Surgical Journal, while endeavoring to reflect the true status of medicine and surgery at large, and working to convey to its readers the newest discoveries and the latest advances in both branches, desires at the same time to become recognized as the especial exponent of medical science in the South and Southwest. Communications from these quarters in regard to quarantine, contagious diseases, hygiene, sanitation, state medicine, peculiar forms of disease—everything germain to medicine, are earnestly asked for. Physicians need not refrain because they feel incompetent to write elaborate essays. All men are not expected to acquire literary culture. Send whatever is deemed of sufficient worth to be known to others, and we will look out for the literary guise. The facts are the main things.

Unless under special conditions, such communications as are not used will not be returned. Matters relating to the Editorial Department should be addressed to Dr. John Godfrey, P. O. Drawer 282, New Orleans, La.

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Died,

At his residence, No. 485 Camp st., on Wednesday, Jan 3, 1883, Dr. Warren Stone, a native of New Orleans, aged 39 years.

At the meeting of the New Orleans Medical and Surgical Association, held Saturday, January 20th, 1883, the following resolutions were submitted, and unanimously adopted:

Whereas, Death has removed one to whose zeal and influence the early success of this Association was largely due, and

Whereas, In his early demise the brilliant promises of future usefulness have been lost,

Resolved, That the New Orleans Medical and Surgical Association unites in paying honor to Dr. Warren Stone, one of its founders, and that the members, as individuals, mourn the loss the medical profession has sustained.

Resolved, That this preamble and resolution be suitably spread upon the minute book of this Association, and a copy be sent to his bereaved family.

Signed, { W. H. WATKINS, M. D.,
O. CZARNOWSKI, M.D.,
F. L. SALOMON, M. D.,
Committee.

Meteorological Summary—December.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.506	49.8	56.3	West.	.....	Mean Barometer, ———.
2	30.364	57.4	62.0	West.	.....	Highest Barometer, 30.596, 1st.
3	30.295	51.0	59.7	East.	.....	Lowest Barometer, 29.620, 19th.
4	30.152	57.7	69.7	South	.....	Monthly Range of Barometer, 00.976.
5	30.088	64.6	74.7	S. W.	.15	Mean Temperature, 54.0.
6	30.164	62.5	83.7	East.	.46	Highest Temperature, 75.5, 14th.
7	30.389	49.9	61.0	North	.....	Lowest Temperature, 29.5, 8th.
8	30.459	38.0	42.7	N. E.	.....	Monthly range, ——
9	30.146	51.7	81.7	East.	.15	Greatest daily range of Temperature,
10	30.042	62.2	83.0	W.N.W	.30	25.7, 15th.
11	30.235	51.5	54.3	North	.....	Least daily range of Temperature,
12	30.122	58.0	74.0	East.	.....	7.0, 23d.
13	30.009	66.2	90.7	South	* .—	Mean of Maximum Temperature, 61.1.
14	29.932	68.5	80.7	S. W.	.....	Mean of Minimum Temperature 46.0.
15	29.991	53.5	69.7	North	.91	Mean daily range of Temperature, 15.1.
16	30.277	39.3	43.7	North	.....	Prevailing Direction of Wind, N. E.
17	30.130	45.3	55.7	South	.....	Total movement of wind, 5915 miles.
18	30.058	58.1	70.7	S. E	.....	Highest Velocity of Wind and Direc-
19	29.749	66.2	87.7	S. E.	.63	tion 28 S. E., 19th, S. W., 20th.
20	29.728	66.7	63.0	West.	.16	Number of Clear Days, 11.
21	29.840	56.9	76.7	East.	.70	Number of fair days, 10.
22	29.936	56.0	75.0	N. W.	.72	No. of cloudy days on which no rain fell, 1
23	30.102	52.7	57.3	N. W.	.....	Total No. of days on which rain fell, 14
24	30.181	51.1	66.7	East.	.....	COMPARATIVE TEMPERATURE.
25	30.127	51.3	71.0	N. E.	* .—	1873..... 56.0 | 1878..... 51.2
26	30.260	53.2	58.3	N. N.E.	.....	1874..... 58.8 | 1879..... 59.8
27	30.295	51.3	62.3	N. E.	.01	1875..... 61.5 | 1880..... 53.0
28	30 271	45.7	61.7	N. E.	.06	1876..... 48.0 | 1881..... 59.2
29	30.216	45.5	57.7	N. W.	.02	1877..... 55.5 | 1882..... ....
30	30.283	43.9	51.0	N. N.E.	.....	COMPARATIVE PRECIPITATIONS.
31	30.310	48.2	62.7	N. E.	.....	(Inches and Hundredths.)
						1873..... .... | 1878..... 8.69
Sums.	.....	....	....	.....	Tot.	1874..... 3.27 | 1879..... 2.90
Means	30.150	54.0	66.1	N.N.E	4.27	1875..... 5.15 | 1880..... 6.45
						1876..... 9.57 | 1881..... 6.62
						1877..... 4.96 | 1882..... ....

*Inappreciable.

L. DUNNE, *Sgt., Sig. Corps, U. S. A.*

Mortality in New Orleans from December 16th, 1882, to January 13th, 1883, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
December 16	0	6	18	9	9	126
December 23	0	11	23	13	8	120
December 30	0	9	17	9	13	135
January 6	0	6	17	11	11	163
January 13	0	2	12	13	14	120
Total....	0	34	87	55	55	664

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

MARCH, 1883.

ORIGINAL PAPERS.

The Fumigation and Disinfection of Vessels and Cargoes, with Special Reference to the Mississippi River Quarantine.

BY G. FARRAR PATTON, M. D.

[Read before the Orleans Parish Medical Association, January 29th, 1883.]

With our present knowledge of infectious diseases and particularly in view of the severe lessons that experience has taught us with regard to the manner in which the special infection of yellow fever is liable to be brought to our shores by vessels arriving from the West Indies, Mexico and South America, it is specially desirable that those measures upon which we chiefly depend for protection against imported pestilence, may be made as thoroughly efficient as possible. These measures are embraced under the general heading of *quarantine*, but the efficacy of quarantine as inforced at any particular station, will depend entirely upon the manner in which the details of the work are carried out.

It is not enough merely to detain a vessel from an infected district, with her cargo and passengers, for any specified length of time, after which she would be allowed to proceed to her destination, where the laborers and others engaged in handling the cargo, would be exposed to the influence of any poisonous miasm brought away with the atmosphere of the infected port, still present in the confined hold of the vessel and clinging, as

we believe, to every bale or sack of the cargo. Something must be done to purify this suspected atmosphere and to destroy such fever germs as may still lurk in the bilge water, and on the walls and timbers of the hold, as well as among the separate packages comprising the cargo. Many plans, including the application of dry heat, of refrigeration, and of disinfection with chlorine, have been suggested for accomplishing this object, but the one most generally practised is that of endeavoring by means of sulphuric acid gas, generated directly in the hold of a vessel, to search out and destroy any germs that may be present in the confined atmosphere of the cargo spaces and among the cargo, while with a view toward purifying the bilge water, and in wooden vessels, of disinfecting the timbers, solutions of carbolic acid, the sulphates of iron and zinc, either separately or combined, are introduced, the bilge water being pumped out and replaced with fresh water from time to time.

These measures, if thoroughly and repeatedly carried out, any porous ballast that may be in the hold being discharged or well disinfected and the walls washed and coated with coal-tar or white-wash, will usually suffice for even the most unclean and infected vessel; but where the hold is found on arrival to be filled with a closely packed cargo, it is manifestly impossible to accomplish the work of purification, without removing this cargo, or in some favorable cases, shifting it about from one portion of the vessel to another; this latter plan, however, involving an amount of trouble which renders it very liable to be imperfectly carried out, unless the laborers are closely watched.

To provide storage room for cargoes that have to be discharged, warehouses are provided at the more important quarantine stations. The general plan of proceedure is to fumigate these cargoes in the warehouse, the fumigations being conducted at night. By this plan, no matter how loosely such a cargo as coffee may be arranged, with a view to having the gas circulate freely among the sacks, it is certain that the greater part of the surface of the separate sacks is not reached by the fumigation.

It must not be forgotten however, that during the transfer of the cargo from the vessel to the warehouse a certain amount of aeration is effected, which may, and doubtless does, contribute toward freeing the sacks or other packages from the presence of the dreaded *germs*, but it is true, on the other hand, that in numerous instances the infection of yellow fever has apparently been conveyed to places more or less remote by means of clothing which during the time of transfer was exposed to the air, showing that aeration alone is not to be depended upon.

The plan of shifting the cargo from one portion of the vessel to another for purposes of fumigation as has occasionally been done at the Mississippi River Quarantine Station in cases where the hold was only partially filled, is one that with care can be made comparatively thorough, but in general it may be said that the purification of the hold itself is less likely to be thoroughly accomplished by this method than if the entire cargo were removed, since any portion that remains on board is necessarily more or less in the way, and is liable to be damaged during the process of washing out and disinfecting.

Aside from these objections from a sanitary point of view to the methods of fumigation and disinfection of vessels and cargoes as at present carried on at the principal quarantine stations, while it is not to be denied that these methods are the best available with the means placed at the disposal of quarantine officers, there are other objections, viewing the matter from a commercial stand-point, which also deserve consideration.

No one pretends to claim that it is of any advantage to detain the cargo of a vessel in quarantine longer than may be necessary to thoroughly disinfect it, which with proper appliances need not require more than from two to five days; but under the present system cargoes, after being fumigated, are detained until the vessels to which they belong are released, which with the detention necessary to cover the usual period of incubation of yellow fever and to allow for the proper cleansing of the vessel itself, with all the incidental delays that occur, will vary from twelve to twenty days or longer.

This delay as it would appear, does not always occasion any inconvenience to the consignees of cargoes, but in some instances the reverse might be the case, and it is certainly a desideratum in quarantine work to expedite business as far as consistent with safety to the public health.

A serious source of dissatisfaction is the greater or less amount of damage done to cargoes during the process of transfer to a warehouse. This is particularly true of coffee, of which a certain amount always escapes from the sacks with the repeated handling involved in trucking it to and fro, and in stacking it up in the warehouse. This loss, with the delay incident to the slow and tedious methods in use, the expense incurred for labor, causes a great deal of vexation to the masters of vessels and not a few hearty imprecations.

If the existing system of treating cargoes in quarantine could be regarded as thorough and satisfactory, sanitarians might well feel that the loss of time and money, and the annoyance thereby entailed ought to be borne without a murmur by the commercial and shipping communities, as a sacrifice demanded in the interests of the public health, but as this system leaves so much to be desired from a sanitary, as well as from a commercial stand-point, it is certainly desirable that some plan calculated, if possible, to more nearly satisfy both parties should be devised and put into execution.

In the special case of the Mississippi River Quarantine Station, the safety of any cargo liable to be damaged by salt water is by no means assured when stored in the government warehouse there. No later than last September the whole station was inundated during a violent gale with water from the gulf, the floor of the warehouse being covered to a depth of more than a foot. It is true that such inundations only occur at long intervals, but in estimating possible sources of danger to cargoes discharged at that station, this is one that must be taken into account.

The plan which would seem to promise the best results, both as regards the thoroughness of sanitary measures to be instituted at a quarantine station and the just requirements of commerce, is that of discharging the cargoes of suspected ves-

sels into spacious barges specially contrived to facilitate the fumigation of freight in detail. These barges would be provided with steam power for the hoisting of goods, thus diminishing the cost of labor, and being moored alongside of a vessel in the stream, would insure a much more certain degree of isolation where a vessel might be infected than with the latter lying at a wharf and constantly accessible from the shore.

The transfer of freight to such a barge could be effected with the utmost dispatch, certainly with more rapidity than it could be removed by means of hand-trucks to a warehouse several hundred feet distant, and in case of need, two barges could be worked at once, all the while fumigation in detail being carried on by methods presently to be suggested. When a barge should have been loaded it could be at once towed away, delivering the cargo promptly to the consignees, while the hold of the vessel, being left entirely empty, would offer every facility for a thorough purification at leisure. It is considered desirable to keep the crew of a suspected vessel under observation for a sufficient length of time after the removal of the possibly infected cargo, to cover the period of incubation ordinarily attributed to yellow fever, which, with the barge system, as above described, would involve much less delay to a vessel than with the tedious warehouse system.

In devising any plan for the systematic fumigation of cargoes at the Mississippi River Station, it is important to keep in view the special requirements of coffee laden vessels, since in nine cases out of ten, it is from such vessels that the cargoes have to be removed. Occasionally sugar in hogsheads has to be handled, but with this no special difficulty is experienced as regards the facility with which satisfactory fumigation can be effected.

A plan for the fumigation of coffee in sacks, and other similar cargoes, which would be thorough and expeditious, and not difficult of execution in connection with the proposed barge system, would be to have a fumigating chamber on the roof of each barge, occupying about three-fifths of its length, and leaving one-fifth clear at either end, besides a passage way at the sides. Through this an endless apron, like that used to

remove the *bagasse* from the rollers of sugar mills, would pass from end to end, extending beyond the length of the fumigating chamber, and would be kept slowly moving by means of a steam engine on board the barge. The sacks of coffee, or other packages of cargo, would be hoisted from the hold directly on to the projecting portion of the apron, and by the forward motion of the latter would be carried slowly through the chamber, passing under trap doors at each end, that would fall back into place automatically. While passing through this chamber, each sack or package would be subjected to the action of sulphurous acid gas, supplied by vessels containing burning sulphur, thus saturating the entire surface of each separate article. The barges, having a length of over 200 feet, would give a fumigating chamber of not less than 120 feet, requiring fifteen or twenty minutes for the delivery of the fumigated articles at the opposite end, where a suitable shute, extending downward into the cargo space of the barge, would serve to facilitate their subsequent delivery for storage below. It is believed that this period of fumigation would be sufficient, and would certainly accomplish more than can be expected where hundreds or thousands of sacks are fumigated in one closely packed mass in a warehouse.

Another plan would be to have three small railways on the roof of each barge, converging toward either end, where a turn-table would unite them. On these a number of small cars would be placed, each car capable of holding two or three sacks of coffee, and provided with a box bottom, into which a small vessel of burning sulphur would be placed, from which the fumes passing upward would envelop the sacks resting on a grating above. Each car would have a canvas cover, supported by folding stanchons to confine the fumes.

The sacks being lowered on the car, and the cover adjusted while resting on the turn-table, a pot of sulphur would be placed in the box and the car pushed on to one of the side tracks. This being continued, the cars would fully reach the opposite-turn-table, when the sacks, or other articles, being removed and passed down a chute, as in the other plan, the empty car would be returned by the middle track, and the

operation indefinitely continued. By either of these plans the work would go on continuously and rapidly, while each separate sack would be thoroughly fumigated. Inasmuch as the United States Government has assumed the duty of providing warehouse room for cargoes discharged at the Mississippi River Quarantine Station, it would be in keeping with the same spirit of the Government to supply the necessary barges for the proposed system. As it is, the goverment has at various times expended upward of $80,000 or $100,000 in erecting and repairing the wharf and warehouse of that station, and yet the accommodation provided is so scant that only one vessel can be discharged at a time, while a single cargo of sugar put ashore there last summer, so overfilled the warehouse that a large number of hogsheads had to be left in the open air.

Add to this that the river bank in front of the station is continually filling up, so that where there was over 20 feet of water in 1880, there was only about 12 feet at high water in 1882, thus necessitating the extension of the wharf at great expense every few years, and it will be seen that the barge system would really be a measure of economy. The difficulty as to who should stand the expense of moving the barges and towing them when loaded to New Orleans, might be readily overcome by the plan of chartering a tug boat by the season, either at the expense of the State or General Government, for the especial purpose.

It is hardly to be expected that such radical changes can be instituted immediately, nor without opposition, nor is it claimed that the proposed plans would be absolutely safe and perfect, but as offering advantages over the present system, these general suggestions are put forward, with the hope of aiding in the solution of a problem upon which the practical efficiency of quarantine, and therewith the protection of this city and country against future epedemics of yellow fever so so much depends.

Professor DeRenzi's Treatment of Cirrhosis of the Liver, and of Bright's Disease.

By Dr. John Dell'Orto.

(Read before the New Orleans Medical and Surgical Association.)

Prof. Errico DeRenzi, of the University of Genoa, and lately of Naples, relates in one of his lectures published in *Giornale Internazionale delle Scienze Mediche*, several cases of cirrhosis of the liver treated by him with a strictly milk diet. As the results are both satisfactory and encouraging, I design to lay before you this evening the principal features of that lecture.

Cirrhosis of the liver is, according to Professor DeRenzi, an inflammation of the connective tissue of that organ, which causes the disappearance of its parenchymatous element, and by making pressure on the hepatic branches of the vena porta, produces the following venous stasis and symptoms: 1st. Venous stasis in the vessels of the spleen (splenic tumor); 2d. In the vessels of the intestinal tube (gastro-intestinal catarrh and hæmorrhoids); 3d. In the vessels of the peritoneum (ascites). Though the disease has always been considered fatal by the best authorities, Prof. DeRenzi believes with Prof. Niemeyer, in its curability.

The mechanism, by which a cure is effected in cirrhosis of the liver, is supposed by the Professor to consist in relieving the pressure on the abdominal venous circulation, by the establishment of a collateral circulation, either through the accessory portal veins, or through the external venous plexus of the œsophagus, described by Duret; so that the blood from the abdominal organs, which is prevented from passing through the portal ramifications of the liver, is enabled to indirectly reach the vena cava, and the right cavities of the heart. When this collateral circulation is established, the venous stasis disappears, and the life of the patient is saved.

The best remedy for such a purpose, according to Doctor DeRenzi, is milk.

"The *dieta lactea*," says the Doctor, "that has proved to "be so useful in œdemas and stasis caused by a diseased "heart, must also be good for cirrhosis of the liver. When "conscientiously and systematically employed, milk increases

" the urinary secretion to such a degree as to produce a real " polyuria. It is an aliment of easy digestion; it destroys the " globular anæmia, and, by restoring the forces of the patient, " it helps nature in the establishment of the collateral circula- " tion, upon which the cure of the disease depends."

The first time, that our author tried this treatment, was about the year 1875, on a lady, whose case seemed to be hopeless. The milk diet was suggested; the treatment was strictly followed, and at the end of a few months, the lady was perfectly cured, and she has been doing well since.

In 1878-79, 4 cases were treated in the hospital of Genoa:—of the history of these cases let me relate the principal points. In two of them, besides the milk, artificial Carlsbad water,* was administered.

Case 1st.—S. G., male, entered hospital on December 20th, 1878. *Diagnosis*—Interstitial inflammation of the liver with commencing atrophy—Ascites excessive. Quantity of urine evacuated during the 24 hours—half a *litro* (about one pint).

On the 29th, *dieta lactea* begun, a quart of milk every 4 hours—artificial Carlsbad water as a common drink.

Five days after, a remarkable improvement is noticed—dropsy is disappearing.

Quantity of urine in the 24 hours—from four to five quarts.

On January 30th, 1879, patient quitted the hospital cured.

Case 2d.—R. G., male, entered hospital on January 14th, 1879. *Diagnosis*—Cirrhosis of the liver—commencement of the atrophic stage, complicated with pleuritis, and serous effusion on left side of the thorax—ascites well developed.

Urine scarce and highly colored.

After having properly treated the pleuritis, the administration of milk was begun in the same doses as in the previous case. No Carlsbad water taken.

The quantity of urine was increased in a few days, and at the end of three weeks the ascites had completely disappeared, and the girth of the abdomen reduced to its normal size.

* A saline mineral water containing lithia, sulphates, carbonates, and chlorides of sodium, calcium and magnesium.

Case 3d.—M. V., female, entered hospital May 7th, 1879. *Diagnosis*—Common cirrhosis of the liver; probably small abscesses in the same organ; quotidian intermittent fever; ascites.

Sulphate of quinine was first administered for the intermittent evening fever; *dieta lactea* was then commenced. Improvement is immediately perceived.

On the 21st of June, no symptoms of ascites.

On the 28th she quitted the hospital with a slight marasmus, probably due to malarial infection.

In this case the splenic tumor remained; no Carlsbad water was taken.

Case 4th.—G. G., male, entered hospital June 14th, 1879. *Diagnosis*—Cirrhosis of the liver in the second stage; bronchial catarrh with slight œdema of the lungs; a little effusion in the right pleura; ascites; œdema of the legs; slight jaundice. Quantity of urine does not reach one quart in the 24 hours.

This case was a relapse; patient had the same symptoms two months previously; he recovered under the milk treatment; was a free drinker.

Immediately submitted again to the same treatment; took three quarts of milk a day; artificial Carlsbad water every morning. In a few days he evacuates from four to five quarts of urine in the 24 hours.

On the 23d, œdema and ascites disappeared.

On the 28th he quitted the hospital.

In 1879–80, eight cases more were treated in the same hospital. Out of these eight cases three did not derive any benefit from the treatment; one got perfectly cured; and four left the hospital, if not quite well, greatly improved.

The only organ that is not relieved, in the majority of cases by this treatment, is the spleen; it remains enlarged. It seems that the collateral circulation is not active enough to relax the venous stasis of the spleen. The patient, however, who recovers from the other symptoms of cirrhosis of the liver, may enjoy tolerably good health, in spite of the continuation of the splenic tumor.

These are Professor DeRenzi's views on the treatment of this very serious disease.

In 1880, Professor Semmola, of Naples, the actual leader of the modern Italian school, in a paper read before the International Medical Congress, held in Amsterdam, recommended also the milk treatment in cirrhosis of the liver, and related many cases successfully treated by himself. Prof. Semmola combines the *dieta lactea* with iodide of potassium.

II.

In the same lecture, Prof. DeRenzi speaks of his treatment of Bright's disease with fuchsine* and milk diet.

The experiments made by Heirderhain on the secretion of indigo from the renal epithelium, had suggested to the Doctor the idea, that a coloring matter like fuchsine administered in Bright's disease might have the property of modifying in its passage through the kidneys this morbid condition of the epithelium and check the albuminuria.

The history of Prof. DeRenzi's treatment goes back many years. His clinical observations are very numerous, and the excellent results, that he has obtained in several cases, have satisfied him that fuchsine is the most valuable remedy for this disease.

Formerly he administered fuchsine in two different ways: in solution with water, and in pills. But, as the solution is very disagreeable to the taste, he has lately adopted only the pilular form.

The dose is from 5 to 30 centigrams (one to six grains) in the 24 hours, divided in pills of half a grain each. This dose is well tolerated by the stomach.

One of the immediate effects of fuchsine is to give to the urine its own color; and this coloration lasts during the whole treatment. When the use of fuchsine is stopped, the urine again becomes clear. As soon as the urine gets colored, albumen commences to decrease, and gradually it disappears.

The mucous membranes and the plasma of the blood become also dyed by fuchsine.

When, after one week of its administration, fuchsine fails to dye the urine, the case is considered incurable by Prof. DeRenzi.

* This remarkable coal-tar alkaloid is a combination resulting from the re-action between aniline and choride of tin.

On the Classification of Bacteria.

By H. D. Schmidt, M. D.

Pathologist of Charity Hospital, New Orleans.

The following paper is offered in compliance with a request from the senior editor of this Journal, asking me to write a general description of the different bacteria, which of late years have engaged so large a share of the attention of medical scientists. No attempt at research is undertaken. I have simply endeavored to present the facts in such a way as I thought would be most acceptable to medical men, not specialists. Those acquainted with my previous writings will see that I have to repeat myself; but that does not matter if I succeed in rendering plainer an important branch of knowledge.

The minute organisms which now for a number of years have excited the interest of a large portion of the medical profession, by their being suspected or even positively regarded as the cause of infectious diseases, are generally known under the name of *bacteria*, or *schizomycetes*. They represent minute plants of a spherical, oblong, cylindrical or spiral form, destitute of chlorophyl, and chiefly multiplying by division; though some of them also reproduce themselves by spores. They live either isolated or collected into colonies (zoogloœa). In the latter case, the individuals of a generation are united by a jelly-like substance in the form of round, oblong, or otherwise irregular patches. Most of the bacteria are met with both in an active or passive condition. Though some of them never exhibit motion; when collected in colonies, they are always motionless. The movement of the smallest kind of bacteria, consisting only of a single granule, such as *micrococcus*, appears to be simply molecular, representing the "Brownian motion," while that observed in the larger filamentous forms of these organisms, consists in a rotation around the axis, with a simultaneous bending or stretching of their bodies.

As regards the classification of these organisms, it has at different times undergone various modifications by different authors; though, for practical purposes, the older classification of *Cohn* is generally used. According to it, the bacteria form a natural family, subdivided into four groups, namely:

the *spherobacteria*, *microbacteria*, *desmobacteria* and *spirobacteria*.

Of these, the first group, or *spherobacteria*, represents very minute spherical, or oval, cells (or granules), of about 0.001 mm. diameter. They are met with either single, or united in pairs, or in straight or curved chains, consisting of from 3 to 20 granules. If the reproductive process is very active, the above mentioned colonies, or zoogloœa, will be formed. In this form the spherobacteria exhibit a very characteristic appearance, which renders their recognition very easy; while, in the form of single individuals, they may be confounded with other organic granules, or with minute fat globules. Though regarded in a certain sense as ferments, they are no ferments of putrefaction.

The spherobacteria embrace only the genus micrococcus, which, according to certain physiological properties, has been divided into three groups, viz.: *M. Chromogenes*, *M. Zymogenes* and *M. Pathogenes*. The chromogenic bacteria appear in the form of differently colored gelatinous masses of zoogloœa; they are alkaline in reaction, and produce their pigments only in contact with the atmosphere. The zymogenic bacteria produce different fermentations. The most prominent among them is the *micrococcus urea*, representing the cause of the ammoniacal fermentation of the urine. The pathogenic bacteria, lastly, embraces those forms, regarded as the special ferments of various infectious diseases, such as the micrococcus vaccinæ, M. diphtheriticus, M. septicus, etc. By some authorities, many of the single spherical bodies found among the micrococci, have been regarded as representing merely the spores of some of the higher forms of bacteria.

The second group, or *Microbacteria*, are also represented by only one genus, called *bacterium*, in the narrower sense of the word. These organisms are short, cylindrical or elliptical cells, either single or united in pairs, exhibiting an active, spontaneous motion. They are never met with in the form of chains, though frequently observed to form colonies, united by an abundant inter-cellular substance. The most prominent among them are *Bacterium termo* and *B. lineola*. The former of these

is of a cylindrical, slightly oval form, from 0.002-0.003 mill. in length, frequently united in pairs and exhibiting oscillatory movements. It is met with in putrefying infusions, increasing in numbers with the advancing putrefaction and disappearing with the latter. For this reason bacterium termo has been looked upon as the ferment of putrefaction. The latter, *Bacterium lineola*, though resembling the former in many points differ from it in size, measuring from 0.003-0.005 mill. in length., Its cells, distinctly cylindrical and containing some highly refractive granules, are also met with single or united in pairs; its movements are very active. In company with other forms of bacteria, bacterium lineola is met with in stagnant though not putrid water; but also in putrefying infusions. Some forms of bacteria, closely resembling bacterium lineola, are also developed by the lactic acid and acetic acid fermentations.

The *Desmo bacteria*, forming the third group, represents filiform bodies, composed of elongated, cylindrical joints, either isolated or in the form of chains, resulting from transverse division. The joints of this group of bacteria, however, differ from those of the micro bacteria, by not being constricted at their place of junction, but rather being joined by square extremities. Though occurring in swarms, the desmo bacteria never form colonies or zoogloœa; while some of the species exhibit active movements, others are motionless. They are represented by two genuses, viz.: *bacillus* and *vibrio*.

The *bacilli* are characterized by representing straight, slender filaments or rods; they may be short or of a moderate length, rigid or flexible, mobile or motionless. In pathology, they have acquired a considerable notoriety by the discovery of the B. anthracis in the blood of animals affected with splenic fever, and particularly lately by the so-called B. tuberculosis, represented by *Koch* as the cause of tuberculosis. A fair representative of the genus bacillus, is *B. subtilis*, represented by delicate filaments about 0.006 mill. in length, and met with in stagnant water, either single, or jointed in pairs, triplets, or even in greater numbers. The place of junction in this bacillus is not always very distinct, though perfectly

visible if examined with a first class objective. The filaments are very mobile, and capable of performing different kinds of movements. B. subtilis is said to play an important part in the butyric fermentation; it is met with in rennet, and is capable of living in media deprived of free oxygen; it, furthermore, produces spores, which give rise to other rods. Another bacillus frequently found in company with the preceding, is *B. ulna.* It represents the giant of its kind, its joints attaining a length of 0.010 mill., with a very considerable thickness; it is met with single, or united by two, three or four joints. The joints exhibit a distinct membrane and granular contents. The most famous among the bacilli is the *bacillus anthracis*, met with in the blood of sheep, cattle, horses, etc., affected with splenic fever or "malignant postule."

In this category would also belong the so-called bacillus lepræ and B. tuberculosis, that is if their capacities of giving rise to leprosy or tuberculosis should ever be positively proven, and entitle them to be regarded as separate species.

The *vibrios* represent more or less distinctly articulated filaments, characterized by their waving motion. The genus embraces two species, namely: *vibrio rugula* and *V. serpens.*

The *first* of these ranges from 0.008 to 0.016 mim. in length, presents but a single curve and is provided with a cilium. Its movements are ratatory, more or less rapid around its long axis, and in a forward progression. It is generally met with in swarms in infusions, as well as in intestinal matters and in deposits upon the teeth. The *second*, vibrio serpens, is much thinner than the former, but presents from 3 to 4 undulations, the whole measuring from 0.011-0.025 mim. in length. It also lives in swarms, in infusions, river water, etc.

The *spirobacteria*, forming the last group, are distinguished from the vibrios by their more numerous and corkscrew-like spirals, and represented by two genuses, namely: spiroschæte and spirillum. To the first of these, which are characterized by a long, flexible and closely wound screw, belongs the *spirilla Obermeieri*, met with during the period of pyrexia, in the blood of patients affected with typhus recurrent, or relapsing fever, and measuring from 0.010 to 0.050 mm. in length. The second

genus, spirillum, comprises several species of a similar form and character, but without any signification in pathology.

The species of bacteria, above enumerated, are those best known, and representing the types of the whole family. A considerable number of other species, however, have been recognized as such, and will be found described in the text books of mycology; these we have passed over in the above sketch, as they are of no special interest to the medical practitioner.

The study of the different species and forms of bacteria, in general, is not as difficult, as most physicians imagine it to be. A knowledge of their morphological character, sufficient for all practical purposes, may be readily acquired by the microscopical examination with an ordinary student's objective, such as Bausch & Lomb's, or Zentmeier's, magnifying from 300 to 400 diameters. Any physician, possessing a microscope, may, therefore, acquire this knowledge, provided he takes sufficient interest in his profession to devote a little time and labor to a subject which, for a number of years now, has been one of the leading ones in the medical world. In New Orleans, the material for this study is close at hand, for it may be found almost throughout the whole year in the stagnant water of the street gutters, or of the swamps bordering the city. The same remarks are applicable to the country. Such a study would surely prove no impediment to the progress of true medical science in Louisiana.

TRANSLATONS.

(Translated for N. O. Med. and Surg. Journal, by L. F. SALOMON, M. D.)

I.

RABIES.

Pasteur presented (before the Academy of Sciences), a paper upon this subject in his own name, and that of Messrs. Chamberland, Roux and Thuillier. Thanks to the mode of proceedure which consists in inoculating rabies by taking the virus from the central nervous system, and carrying it directly upon the brain by means of trepaning, the experimental study of this affection has become much more easy, inasmuch as inoculation

is almost sure, and its period of incubation is very much shortened. The following are some of the points which Pasteur was able to demonstrate:

The silent and the furious forms of rabies, and generally all the forms of rabies result from the same virus, for it is possible to pass experimentally from one to the other.

There is every reason to believe that the great variety in the symptoms of rabies, depends upon the primary localization of the virus upon particular points of the nervous system.

The rachidian bulb of a person dead from rabies, like that of any animal, whatever, dead from the same cause, always is found to contain the poison. The rabid virus is found not only in the bulb, but also in all parts of the medulla and in an equal degree of virulence. This virulence persists as long as the parts are not invaded by putrefaction.

The rabid virus inoculated upon the surface of the brain, within the arachnoid cavity, is sure to cause rabies, and its period of inoculation is often reduced to six, eight, or ten days. The same results are obtained by injecting the rabid matter into the circulatory system. Rabies communicated by the latter method is often of the silent form, but appears sometimes, to give place to frightful itching.

Inoculation, not followed by death, of the saliva or blood of a rabid animal by injection into the veins of a dog, does not produce an immunity from rabies, and death following upon a new inoculation, made by trepanning or by intravenous injection. (These results do not agree with those of Mr. Galtier, who believed that he had obtained complete immunity in sheep by the intravenous injection of the virus, not followed by death.)

Pasteur cited some cases of spontaneous recovery from rabies after the primary symptoms only of the disease had developed, but never after the acute symptoms had made their appearance. He cited also, cases of disappearance of the primary symptoms, with a renewal of the disease after a long interval of time (two months); in these cases the acute symptoms were followed by death as in others. One dog, after having recovered from the primary symptoms, remained refractory to all the inoculations which were subsequently made upon him; this is a first step on the road to the preservation from rabies. Three other dogs remained equally refractory to inoculation. Were they, like the former, preserved from rabies by a mild attack, which might have escaped observation, or did they possess a natural power of resistance to the poison, if so be, that there are such dogs, which can only be proven by further experiments?—*Journal de Medecine et de Chirugie Pratique.*

II.

From *Journal de Medicine et de Chirurgie Pratique.*

POISONING BY CARBOLIC ACID.

Mr. Springer reports, in the *Revue Mensuelle de Médecine*, some facts of great importance in the chemical features of carbolic acid poisoning. On January 2d, 1882, there was administered to two patients, both affected with typhoid fever, an extremely concentrated mother solution of carbolic acid, instead of an enema containing 50 centigrammes (8½ grains), as prescribed by Dr. Bouchard, chief of the service. Dr. Bouchard estimated that, taking into account the loss of a certain quantity from different causes, the amount administered to each one of the patients was about 48 grammes (720 grains) of pure carbolic acid. The first patient, aged 38 years, had reached the thirty-third day of the disease; the second, aged 14 years, was only in the sixteenth day, and for three evenings previous, his temperature registered 40° C. (104° F.)

In the first case the injection produced no pain whatever; in the second, violent pain supervened immediately and both complained at the same time of intolerable colic. M. Bourcy (interne of the hospital) was sent for hurriedly and arrived in twenty or twenty-five minutes after the injections had been given. He found both patients in a condition of complete coma; he noticed that there was hiccough. He prescribed immediately large enemata of glycerine and water, but they were not evacuated as was expected. He then introduced a catheter, fitted to the nozzle of a large syringe, and emptied the rectum by aspiration. Four or five litres (8 to 10 pints) of water were then injected and the catheter allowed to remain so that the rectum could empty itself. One hour and a half after the injections the temperature was 36° C. (96.8°F.) in the first case and 35.7° C. (96.3°) in the second; in both the pulse was irregular, the respiration hurried to fifty in a minute, the skin covered with a profuse perspiration and they were in a state of profound collapse. Dr. Bouchard then ordered the ingestion of large quantities of water, through an œsophageal tube, for the purpose of causing elimination by the kidneys. Finally, an injection of ether was given, after which the patients came out of their stupor. Afterwards, during the day they had severe chills; the temperature rose progressively and in the evening registered 41.3° C. (106. 3°F.) in the first, and 41.8°C. (107. 2°F.) in the second case. Both took strong coffee at intervals during the day. The night was passed without any unfavorable symptoms, and the next day the temperature in both was normal.

In both these cases the effects of the poisoning were identical, and, moreover, it is worthy of remark, that in the second case the existing typhoid fever was, so to speak, aborted; for the temperature, always elevated during the evenings preced-

ing, did not rise above the normal after the *toxic effects of the carbolic acid* had passed off. Besides, it is seen how rapid was the absorption, inasmuch as the patients were comatose in twenty-five minutes after receiving the enemata. As to the caustic action, it appeared to be very insignificant, for notwithstanding the extreme concentration of the solution, and the intensity of pain, there was no consecutive enteritis. Finally, it is remarkable that in both patients, even in the one whose temperature had become normal several days before the poisoning, the only toxic effect should have been to bring on an excessive lowering of temperature, followed by a considerable reaction, which manifested itself by a high elevation of temperature. Wherefore, we may conclude that, although a momentary lowering of temperature is produced by the action of carbolic acid, the consecutive result is a well marked thermic elevation.

These two cases, interesting in so many respects, do not permit, however, a just appreciation of the degree of toxic effect of the medicament, inasmuch as, notwithstanding the dose injected, thanks to the rapid and energetic treatment, it is impossible to say what quantity was really absorbed.

III.

A BRIEF DIGEST OF DR. HUCHARD'S CLINICAL LECTURES ON VISCERAL HYSTERIA, AT THE TENON HOSPITAL, PARIS.

From *Journal de Medécine et de Chirurgie Pratique.*

(Translated and Abridged by RUDOLPH MATAS, M. D.)

If the general disturbance of the organism in somatic hysteria, as manifested by its paralysis and convulsions, and its sensory and motor disorders, presents features of the deepest interest to the clinician, the study of the localized or visceral perturbations, so numerous and varied in this disease, cannot fail to prove equally interesting.

Some forms of hysteria begin purely as visceral disorders, a fact which, if not thoroughly appreciated, will often mislead the diagnostician. This statement might be well illustrated by the history of a young girl of sixteen, in one of Dr. Huchard's wards, who, before suffering with any convulsive attacks, was troubled for months with strange phenomena about the neck of the bladder that closely simulated the symptoms of vesical calculi. Other forms of this malady, in their incipient evolution resemble the visceral lesions which are peculiar to rheumatism; they affect the internal organs for many months and years, so that they easily become the fruitful source of diagnostic errors. A patient under the care of Dr. Potain, was afflicted with a disease sufficiently obscure to lead several prominent phy-

sicians to make successively the varied diagnosis of pulmonary tuberculosis, ulcer of the stomach and tuberculous peritonitis. The last diagnosis had been made in view of the existence of the most violent abdominal symptoms, such as an intense pain and diffused tenderness, which were totally out of proportion with a very small retro-uterine hematocele that really existed. Now, it is well known that in hysterical women "great effects are often the consequence of trifling causes;" it is known that an almost inappreciable lesion engrafted upon a pre-existing hysterical state will often give rise to appearances of such great gravity that it will at times deceive the best clinicians. To illustrate these statements I need only to refer to what is so frequently observed in gynesic practice; the pelvic or ovarian congestions, so frequent among young girls, are they not often the starting points of intense abdominal pains, tympanites, vomiting, etc., etc., a group of symptoms capable of simulating a real peritonitis?

On the other hand, it must not be supposed that because of the mobility of the symptoms and the easy substitution of the phenomena that we have a sufficient proof of the neurotic origin of the malady, on the contrary, in visceral hysteria the morbid condition fixes, roots itself, so to say, in an organ with such obstinacy and tenacity that the practitioner becomes thoroughly exasperated in attempting its eradication. There are nervous coughs which persist for years; pseudo-peritonitic phenomena, which remain immovable for months, and doubtless many have noticed how long some anorexiæ will persist to the great despair of the medical attendant; and, finally, how some cases of scanty urine (oliguria) or suppression of urine (anuria) with uræmic vomiting occur and obstinately refuse to be corrected in spite of the most desperate therapeutic efforts. One of the characteristics of visceral hysteria is to manifest, quite frequently, a torpid, apathetic and rebellious tendency to treatment. Another peculiarity, also, is its permanent residence in an organ, without in the least affecting the organism as a whole. It is, however, a remarkable feature of this neurosis to change frequently in character without altering its seat and, it thus happens, that disorders and conditions of the most opposite nature are seen to follow closely and rapidly after each other in a single organ or viscus; that in the stomach, atonic vomiting frequently supplants spastic vomiting, and hæmatemesis takes the place of gastrorrhea and vice-versa. The disease may be well said to become proteiform in situ.

We may ask ourselves, why is it that hysteria remains confined for such lengthy periods in the internal organs of some patients while it tends to manifest itself exteriorly or peripherically in others? Very frequently we are at a loss to ex-

plain this peculiarity. However, it has been a matter of ancient observation, that hysteria is confined to the internal organs in arthric or rheumatic subjects more often than in any other class of patients; the older writers, Whytt and Sydenham, believed that hysteria was always the offspring of rheumatism, this view, which is, of course, an exaggeration, is only corroborative of the clinical truth that we have just expressed. Again, heredity, understood in a restricted sense, may exercise a real influence upon the fixation of this neurosis in an organ or apparatus. For instance, we find that patients who are afflicted with gastric hysteria, have had gouty or rheumatic ancestors who have suffered from some disorder of the stomach, such as simple dyspepsia, gastralgia, or even cancer of this viscus; others, again, who complain of palpitations, frequent syncopes, are the issue of mothers who have succumbed to a genuine organic heart disease; another class of patients will sometimes consult us who present the signs of a hysteroid pseudo-tuberculosis (cough, frequent hemoptysis, dyspnœa, etc.) which can be easily traced to ancestral pulmonary diseases; and, finally, is it not a matter of frequent and well attested observation that intellectual or mental hysteria has its origin in a parentage cerebrally diseased and in whose history mental alienation, mania or other affections of the nervous centers, have played a prominent part? All these facts prove, according to M. Huchard, that side by side, with the hereditary transmission of disease, we must place the peculiar hereditary disposition of the various organs, which makes each special organ or viscus the heir of the physiological or morbid peculiarities of its ancestral correlative or homologue.

After these general considerations we are ready to follow M. Huchard in his study of this neurosis as it affects the circulatory and digestive apparatus:

The circulatory apparatus is frequently the seat of trouble among hysterical subjects. In restricting myself to the cardiac phenomena it suffices to mention the frequent syncopes or lypothemiæ, the "violent pains at the heart," the truly nervous palpitations that we must learn to differentiate from a pre-existing or concomitant anæmic state, or, again, from the pseudo-palpitations induced by hyperæsthesia of the precardial wall.

Angina pectoris is comparatively rarely met with in hysteria; it was prominently noticed in 1866, by Mr. M. Friederich and Eichwald, and very recently by M. Marie, who cites two instances especially remarkable on account of the violence and intensity of the vaso-motor troubles. The intra-thoracic pains or pseudo-angina pectoris of hysterical women presents distinctive characters; its symptoms are not so pronounced; its irradiations are less correct, and it is much more capricious

in its appearance than the classical angina-pectoris; it is frequently felt at night, and often repeats its attacks without seriously affecting the general health of the patient.

The heart is also the seat of functional murmurs which are not associated with anæmia or any other hæmic condition that might explain them. These morbid sounds appear and disappear with great rapidity and are accountable, in M. H.'s opinion, by the existence of a spasm of the papillary muscles.

At times the cardiac troubles, among which palpitations rank foremost, appear to depend on a disordered innervation of the pneumogastric nerve; for, in such cases, gastric and respiratory troubles rapidly supervene upon the cardiac phenomena. Such a pathogeny was clearly demonstrated in one of Dr. H.'s wards, by a young girl who complained of a tenderness and pain all along the course of the vagus in the neck. She has vomiting spells which are usually preceded or accompanied by the phenomena of suffocation, a croupy, spasmodic cough and palpitations, all signs which confirm once more the existence of the "morbid synergies* of the pneumogastric."

Hysteria affects the stomach in various ways: *a*, through a disorder of the sensory apparatus of this organ (gastralgia, painful vomiting from gastric hyperæsthesia, vomiting without straining efforts and due to gastric anæsthesia); *b*, through a disorder of its motor nerves (spasmodic gastralgia, spastic vomiting, (?) pylorismus (spasm of the pylorus), gastric atony and transitory dilatations of the stomach); *c*, through secretory or glandular disturbances (flatulence, aqueous vomiting from gastrorrhœa, uræmic vomiting from vicious or vicarious excretion, etc.). Again, we not unfrequently meet, among hysterical subjects, with a hysterical pseudo-gastralgia, in which the pain, instead of being situated in the viscus, is only a superficial tenderness or pain over the epigastric region.

It is also important, according to M. Huchard, to differentiate between the various forms of hysterical vomiting, the latter term being too broad, according to this teacher, to cover up the diverse conditions which underlie the pathology of vomiting in hysteria. This differentiation should not be made for the sake of diagnostic accuracy alone, but as a matter of decided importance in practice:

1st. Vomiting due to hyperæsthesia or to spasm of the stomach, follows shortly after taking meals. The vomiting spells are frequent, painful, accompanied by nausea and frequently followed by diarrhœa. In either case (whether vomiting be due to hyperæsthesia or spasm), opiates before meals (morphia, hypodermically administered) and hot fomentations over the epigastric wall should be resorted to. If pharyngeal

*Synergy. The morbid action of several organs directed to one end, as in digestion (Thomas' Dict.) [or, as in this instance, the morbid action of several organs connected by one medium,—a nerve. Trans.]

hyperæsthesia is superadded to increased sensitiveness of the gastric wall, inhalation of a concentrated solution of potassium bromide, directed to the pharyngeal wall with the atomizer, is indicated and should be used.

2d. In another class of cases, vomiting comes on tardily, long after the ingestion of food, without nausea or pains; it is associated with a distention of the stomach and constipation. It is the vomiting dependent upon gastric atony for its causation. In these cases, opiates are contra-indicated and should not be administered. Stomachics or carminative stimulants, bitters, nux vomica, strychnia, and even faradization of the epigastrium are the remedial agents to be used.

3d. Vomiting due to a disturbance of the secretory apparatus of the stomach, such as gastrorrhœa, etc., is manifested by the very profuse emesis of an aqueous or mucous fluid during or after the meals. It is in this trouble that frequent washing of the stomach should be resorted to.

4th. Gastrorrhagic vomiting is often the most rebellious of all these various hysterical disorders. Whenever bloody vomiting is supplementary or vicarious to suppressed or diminished menses, the action of the remedies should be directed to the re-establishment of the catamenial flow; in the opposite instance, when the hæmatemesic spells are due to a vaso-motor trouble (?) in the gastric mucous membrane, then vaso-constrictor remedies, such as ergot, or ergotine, the perchloride of iron and quinine, are indicated. Derivative medication will also frequently meet with success; dry cups, blisters and touching the epigastrium with a thermo-cautery are thus recommendable.

5th. At times the vomiting spells are preceded or accompanied by cough, dyspnœa, palpitation and pain along the vagus in the neck, such cases are properly classified as instances of neuralgia of the pneumogastric nerve (pneumogastralgia). In such cases the repeated application of the constant current will prove beneficial.

6th. Finally, another class of cases in which a vomiting takes place, that is characterized by the discharge of a fluid containing urea, and by its occuring in conjunction with the phenomena of anuria or oliguria. These are improperly designated as cases of "uræmic vomiting," though they are in reality never accompanied by the toxic phenomena of uræmia. They rather represent a supplementary or vicarious vomiting of the renal excreta, strictly comparable to the vicarious vomiting of blood in amenorrhœa. In these patients we frequently have an opportunity to observe the symptoms which M. Fabrel (of Marseilles), has appropriately classified as "suspensive" or "inhibitory" hysteria. In this condition the nutritive processes seem totally suspended, and assimi-

lation and disassimilation arrested. This general nutritive inhibition seems to predominate throughout the glandular system, but is especially noticeable in the secretory apparatus of the stomach, which seems totally paralyzed; the patients eat no more, they cease to urinate, and, notwithstanding all this, manage to maintain their natural "embonpoint." There is a suspension of the absorbent functions and elimination is arrested, so that all medicines taken exhibit none of their physiological properties; the patient is plunged in the therapeutic ataxia or apathy which hysterical subjects not infrequently exhibit. In these conditions of glandular inactivity, the food introduced into the stomach amounts to just so much foreign material introduced into this organ. Of course it is promptly rejected and thrown up, just as would happen in a case of indigestion fr om overloaded stomach.

This so-called uræmic vomiting is no more allied to a disorder of the stomach than is the supplementary vomiting of blood in the vicarious hæmatemesis of amenorrhœa; the functional trouble lies not in the stomach but in the kidneys; therapeutics has nothing to do with the stomach, it has all to do with the disordered kidneys. Unfortunately, however, it is just in such a case that the therapeutist is totally disarmed; here, the practitioner can achieve nothing by the administration of medicines, for the economy remains totally indifferent to the absorbtion of aliments and medicines in virtue, purely, of this *salutary* perversion or suspension of nutrition. Notwithstanding this discouraging knowledge of the impotence of the materia medica, these very cases are the ones that furnish the material for celebrated cures; singular, unexpected and almost extraordinary recoveries may result from a sudden strong emotion, by fear, hope or an absolute, blind faith in a physician or his medicines,—we thus understand the modest but at times miraculous virtues of the unofficinial pilula micæ panis.

In all cases of visceral hysteria hydrotherapy is the most important mode of practice. But the douche should not be prescribed blindly and carelessly, as is usually done, for if the stream of water be directed too strongly against painful or histero-genetic spots we will only succeed in exasperating the patient and aggravating the morbid condition.

In treating hysterical vomiting dependant upon spasm of the stomach and especially of its cardiac or æsophageal portion, the introduction of foods through an alimentary tube (Faucher's) will often succeed when all other measures will fail.

Such are the principal facts discussed by the distinguished physician of the "Hôpital Tenon;" they amply demonstrate the importance that should be attached to the study of visceral

hysteria whether we consider it from either the diagnostic, prognostic or therapeutical standpoint.

IV.

SOME NEW REMEDIES WHICH REDUCE THE FEVER TEMPERATURE TO NORMAL.

By Prof. W. Filehne, Erlangen. Translated by Dr. F. Loeber.

O. Fischer and W. Koenig composed synthetically a substance, Oxychinolinmethyl hydruer C_{10} H_{13} NO. and called it briefly *kairin*. The muriate of kairin is a crystalline, grayish yellow powder, soluble in water, and possesses a most salty bitterish aromatic taste. Most persons consider the taste disagreeable and on that account it should be given in wafers.

The experiments made at the clinic of the University at Erlangen, gave the following results. Doses of 0.3 gram administered only once had hardly any effect on the temperature. A dose of 0.3 to 1.0 gram administered once reduced the temperature ½° to 2° Cel. (1½° to 4° Fah.) The effect commences about 25 minutes after the administration and continues after 0.5 gram for 2¼ hours; after 1 gram for 3 hours. As soon as the effect ceases, the temperature quickly rises, accompanied with chilliness.

If another dose is given before the effect of the former subsides, the temperature continues to sink and by giving 0.5 gram every hour for four hours, we can force the temperature down to 37, or 36.5 (98 6 or 97.7 Fah.), reduction of the fever takes place with profuse perspiration, but continues only till the temperature of the body gets to normal or below normal, a proof that the reduction of heat is not produced by the sweating. The absence of the sweating in healthy persons also speaks for it.

Patients, particularly such as are suffering from pneumonia, feel themselves very comfortable as soon as the low temperature occurs. The malady, however, begins in full force subjectively and objectively with disagreeable chills, as soon as the remedy is discontinued. The chill may be prevented if 0.75 grm. kairin every two hours is given. To do this, the nurse as well as the patient, has to be awake every two hours, and the night's rest for both is lost. The author attempts to remedy this, but not very successfully, by giving the medicine only till after midnight, or by gradually diminishing the evening doses, allowing the fever to rise but slowly.

He remarks that the dose of 1 grm. every 2 hours for adults, and still more so for weakly persons, should never be trans-

gressed, otherwise cyanosis might occur. The urine, under the use of kairin, gets dark green.

Two other substances, also febrifuges, are the chinolinmethylhydruer, called in short, "*kairolin*," and the chinolinæthylhydruer. Doses of these substances of 0.3 to 1.0 gram. given only once have no effect, but if we give 1.5 to 2.0 gram. doses, the effect, although slowly developing itself, will be lasting for six hours, and will also cease gradually. When the temperature rises again, the chill will be either missing entirely, or it will be hardly noticeable.

The pure kairolin is not yet manufactured for the trade, it is very deliquescent, and has a disagreeable taste.—*Berl. Klin. Wochensch.*

V.

TREATMENT OF HYSTERIA.

By Prof. FRIEDREICH, Heidelberg. Translated by Dr. F. LOEBER.

The cause or causes of the many-headed hysteria was sought in vain in the morbid condition of the organs; first, as the name tells us, in the uterus, afterwards in the ovaries, principally the left. Even after the extirpation of these organs, hysteria still continued to exist. Friedreich, in a short article, published after his death by Prof. Schuze, draws our attention to the fact that the clitoris and the pudendal nerve are also sources from which by reflex action many nervous disturbances may take their origin,—not through masturbation only, which only occasionally is the primary cause, but by involuntary conditions of excitation and local sensations produced by it, which naturally secondarily lead also to masturbation. More conclusive than this theoretical *raisonement*, Friedreich proves the connection by cases; at the same time showing us a remedy to produce a cure of the disease. Intense cauterization of the clitoris with argentum nitras has produced a momentary cure in eight aggravated cases of hysteria, which previously had undergone many different modes of treatment without success. For instance: Paraplegia of the lower extremities, existing for 1½ years; hysterical aphonia, existing two years; glossoplegia, of eight months duration, a seven months tonic contraction of the accessorius muscle, etc. Since Friedreich recommends this remedy, it would be advisable to use it in proper cases. It can do no harm, and is certainly preferable to those organ-destroying operations, such as castration and clitorodectomy recommended for the cure of hysteria.—*Virchow's Arch.*

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary moment are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, address DR. JOHN GODFREY.

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EDITORIAL.

THE CLASSICS *versus* SCIENCE.

We have lately read in pamphlet form the address of Traill Green, A. M., M. D., President of the American Academy of Medicine, before that body, October 26th, 1882. We do not mention this with the view of criticising the address, for it contains nothing demanding critical notice, being simply a plain matter of fact plea for a higher grade of education, including, of course, classical culture.

Upon second thought, it is more than a plea; it is an argument; but such a one as is built upon testimony. Dr. Green embodies in his address what those have to say who are eminently fitted to testify; and to our way of thinking it is the most argumentative presentation of the matter which we have yet seen. Everyone at all familiar with the subject knows that this question has caused a vast deal of discussion, and has drawn out from time to time many of those supposedly best able to handle it; but such part as we have read was more or less vague, not containing statements that *had either to be refuted or accepted.*

The ablest plea for a *classical curriculum*, which we have hitherto read, is that of Matthew Arnold, in his address delivered at Cambridge. This address was in part a reply to some strictures of Prof. Huxley, which came out while he was delivering the inaugural address at the Scientific School,

founded by Sir Josiah Mason. Professor Huxley rapped Mr. Arnold, and those of his school, rather hard, and the latter no doubt felt impelled to reply in his best vein. Notwithstanding, his arguments, though ingenious, were not of the irrefutable, compulsory sort.

We refer to this simply to show that it is rather a curious thing that so able a man could not put forward a more convincing plea for a question claiming so many adherents. That neither he, nor those preceding him have done so, inclines one to doubt the justice of their claims. Dr. Green, however, has been clear to conciseness. Anybody can lay hold on what he says. After reading what the authorities quoted by him have to say, we may put the case thus:

Those best qualified to speak are unanimously of the opinion that the medical schools of this country should extend and make more thorough their *curricula*, and require, if not a classical, at least a higher grade of preliminary education from medical students.

Nobody of good sense can probably be found willing to gainsay this proposition; and the authorities quoted by Dr. Green are more than enough to make out his case. The public, therefore, must stand convinced. But what is the outcome? Is the outlook for higher medical education more favorable? We think so; that is, we believe we think so. But we do not ascribe this favorable outlook to any unanimity of conviction. Human nature has not yet reached that stage of perfection that would justify our doing it. Belief and practice are by no means the same thing. For instance, out of so many persons believing with Dr. Green, there must necessarily be some belonging to medical schools where the requirements are not up to the standard prescribed by such men as the President of the American Academy of Medicine; and doubtless they view the question in its true light; nevertheless, they make no ostensible effort to better things; and, if we mistake not, it will be some time before any general effort of the kind will be made.

It will be made, however, when the American Academy of Medicine grows to greater proportions, and when men like Dr.

Green keep proclaiming the necessity for better educated physicians until all the Johns Hopkins of the country are so saturated with the conviction, that enough of the larger schools will be endowed by them to swallow up the little ones. We are aware that it will take a long time, and a goodly number of endowments to accomplish this. We are duly weighing the special features of the American medical schools. We keep in mind the fact, that every State may have one or several—dozens; that all, or nearly all, are private enterprises; that medical professorships always open the door to advertising, which few doctors are too stupid to see, and the majority not too—well, bashful—to use. Of all this we keep mindful, and yet believe what we have said. And we believe it, because we think we perceive a slow but steady advance in medical scholarship.

The first half of Dr. Green's address, taken up mostly with citing authorities showing the necessity for a higher education and a more thorough training of medical men, is not so interesting as the second part, wherein lie the arguments before referred to. It contains statements from the Faculty of the University of Berlin, to the effect that classically educated students show a manifest superiority over those who have pursued merely the course in science. The testimony of several professors, based upon ten years observation, is quoted, and the evidence seems well nigh irrefragable. The Professor of German declares: "According to my experience, it is hopelessly impossible for a student prepared in a scientific school to acquire what may be called a thoroughly satisfactory development." This is strong language—very strong—but not conclusive, since one may take refuge behind a quibble on the definition of the phrase, "thoroughly satisfactory development." Nay, one need not quibble, for no man's idea of *development* can be regarded as a fixed quantity. Other testimony, however, goes to show that those trained in the gymnasia outstrip the non-classical even in the high grade mathematics. This is likewise strong language, but it leaves no room for quibbling. It must either be denied outright, or allowed to take position as an important factor in the education

of youth. An assertion like this must carry weight, for it must be remembered it was said by one with ten years of observation at his back.

But, after all, are the *dicta* of the Berlin professors conclusive? Is there no factor not yet perceived? May there not be some defect in the scientific course? Unquestionably, if in the long run the students of scientific schools show themselves no match for those trained in the gymnasia, there should continue to be a strong cry for the classics—from medical men at least. Herr Mühlenhoff, the Professor of German before referred to, declares that no one ever becomes satisfactorily developed "without the solid foundation of a training in a gymnasium;" and it may be possible that conning Greek and Latin verbs more effectually fits one for comprehending the subtleties of mathematics than do studies in physics, but somehow we doubt if it causes a more satisfactory development. Confucius, Moses, Bonaparte, and some others we might name, were fairly developed, but they owed nothing to a German gymnasium, or to the classics. Matthew Arnold says: "The instinct for beauty is set in human nature, as surely as the instinct for conduct. If the instinct for beauty is served by Greek literature as it is served by no other literature, we may trust to the instinct of self-preservation in humanity for keeping Greek as part of our culture." On the other hand, the instinct for truth, as shown by the editors of the Popular Science Monthly,* is quite as surely served by the cultivation of science, and between the two the latter should weigh the heavier. However, it may be that each has formulated the truth in regard to the two, and furnished a psychic reason for the persistent attempts at supremacy of the partisans of science and letters. When it comes, though, to a question of the fittest, which we think yet far ahead, the latter will have to go to the wall.

It is difficult to understand that the mind trained to observe and to weigh the phenomena of biology; disciplined by botanical and geological classification; in a word, that has acquired the genuine scientific sense so that it knows where to look and

* See No. for October, 1882, p. 845.

what to see, is not as satisfactorily developed as the one that has become familiar with the beauties of Plato and Cicero, or even with the entire field of Grecian and Roman antiquity. But if a University Professor is correct in saying that the classically trained eventually acquire scientific knowledge with more facility than those who began with science, the long and the short of the matter is, we had better hold on to the classics a while longer.

Experience abundantly proves that the pursuit of the natural sciences exalts character, and augments the love of truth—the truth for its own sake. On the other hand, the cultivation of letters refines and dignifies; smoothes down asperities and lends nameless graces; and as Mr. Arnold says: "we shall find that the art and poetry and eloquence of men who have lived, perhaps, long ago, who had the most limited natural knowledge, who had the most erroneous conceptions about many important matters, we shall find that they have, in fact, not only the power of refreshing and delighting us, they have also the power—such are the strength and worth, in essentials, of their author's criticisms of life—they have a fortifying and elevating and quickening and suggestive power, capable of wonderfully helping us to relate the results of modern science to our need for conduct, our need for beauty."

In our opinion all this vastly concerns men devoted to physic. Everything educational concerns *American physicians.* We are conscious of the fact that medicine is a true daughter of science, and cannot exist without her sheltering wing, but, all the same, would it not be well, for her disciples at least, to pay more heed to the classics? We think so. Linguistic acquirements are little more than stored knowledge. The same may be said of the classics, but we do not remember to have known a physician at all incommoded by understanding them; we do know some that would be better off if they did.

The physician's relation to society is unique. He cannot be judged precisely as other men. His highest achievements, his true fame he must owe to science; but were he always equipped with such training, and imbued with such tendencies as are acquired in a German gymnasium, the chances would probably

be fewer for the profession at large to blush at such stinging statements as the following: "learned, able, conscientious physicians and surgeons we have, but they are a melancholy minority in the great froth ocean of practitioners. In the United States there are nearly a hundred medical colleges, a majority of which are only chartered doctor factories. To them flock every year green young men, many of whom could not write a sentence of correct English, if the salvation of their souls depended on the effort; who obtain certificates of study from easy-going practitioners, listen to miscellaneous lectures for twice fourteen weeks, and are graduated as doctors."

Dr. Green's address aims at evils like these. That it will do much good for the present, we are not over sanguine; nevertheless, we thank him for the excellent manner shown in turning his facts into expression.

THE NEW PHARMACOPŒIA.

There is an old story which no doubt is already well known to nine-tenths of those who chance to read these lines, but for all that, we shall take the liberty of repeating it once more. It runs thus:

A certain artist having devoted much time and labor to the completion of a certain picture, thereupon placed paints and brushes, where they would be handy to come at, and set up a notice to the effect, that all those who perceived defects in the picture would confer a favor by remedying them. Straightway the critics fell to work, perceiving defects and applying remedies. In consequence, the original painting was soon in a condition that forbade its recognition, even by him that made it.

We presume this story was known to those who had the Pharmacopœia under revision. So far as we know, they have neither furnished paints nor set up a notice; nevertheless, a great many brushes have been grasped, and a great many suggestions have been made—revealing the wonderful fact that the editors of all the countless myriads of medical journals in this country have developed into competent critics on a

branch of medicine not hitherto accounted the easiest in the catalogue.

We hope the revisers of the Pharmacopœia won't adopt the suggestions of all the reviewers. Some of them are eminently wise, no doubt; but all the same, whether our weak voice is heard or not, consider it lifted up in favor of leaving the work as it is—until the next revision.

Reports of Cases.

I.

THE POST-MORTEM EXAMINATION OF THE BODY OF MRS. ELLA MCALEXANDER REVEALED THE FOLLOWING FACTS.

Present Doctors J. T. ABERNATHY, WILLIAM M. PRICE, A. H. HENDERSON and E. M. STEWART.

Subject married, mother of two children, ages three and five years. Had been married six or seven years. Was thirty-six years old. Four feet four inches high. Weight in health 120 pounds; blonde-light hair, blue eyes; had always enjoyed excellent health; passed through the period of gestation and parturition normally. For the third time she thought herself pregnant. There were some symptoms present in this case, however, with which she was not satisfied; and at about the end of the fifth month she determined to consult Dr. Maury, of Memphis, Tenn., and went to the city for that purpose. Dr. Maury, with a corps of able assistants, after examination, decided that it was not pregnancy, but an enlarged ovary, which caused the trouble. An operation for its removal was determined upon.

The operation was commenced. An incision extended from just above the pubis to near the umbilicus was made. This free incision exposed such a state of things as caused the medical gentlemen to decline further interference, and the wound

was closed. The patient was advised to return home, and was not encouraged in the hope of ever recovering.

But little was attempted in the way of medicine. Paliatives were recommended, and generous diet used. About two months before her death, I saw her professionally for the first time. After hearing a full history in detail of her case, I could not give such a prognosis as was at all encouraging, and candidly told her that she must not entertain the idea of recovery. The abdomen continued to increase in size, and at the time of her death had grown to the enormous size of seventy-two inches circumference, two inches above the umbilicus, while the arm midway between the shoulder and elbow measured only five-and-a-half inches.

The whole body above the pelvis had emaciated in like proportion.

She died an easy death, seeming to sink into a natural endless sleep. As some of the gentlemen present thought there was serum in the abdominal cavity, repeated attempts were made to introduce a trocar, but at each trial it met with such resistance that it was given up, and we at once proceeded to open the abdomen, which was done by making a free incision through the skin and integuments from the pubis, following the line of the cicatrix left by the cut made by Dr. Maury, extending to the sternum.

To the amazement of all present, and lying immediately under the skin, embedded in cellular tissue, and resting upon the attenuated muscles of the abdomen, lay a straight dark line about one inch wide, extending from the lower end of the cicatrix to two and a half inches above the umbilicus, which seemed to be the upper terminus of cut, now measuring over the enormously distended abdomen twenty-nine inches. Upon carefully dissecting up this body, it was found to be the descending colon, filled with normal fœcal matter, flattened out by the pressure of the tumors from within, and resistance of the skin without. This proved to be the only connection between the stomach and rectum. The channel through which all the fœcal matter has passed for more than ten months. As we supposed, this strange transposition had taken,

place as the healing of the wound advanced. After removing this intestine, we opened the abdomen by carefully dividing the muscles. We now made a crucial cut from near the skin, crossing the abdomen about two inches above the umbilicus. We now had a full view of the masses of morbid growth, by which the whole cavity was filled. The next step was to remove the tumors, watching for connecting links. The only one found was a general kind of cellular net work, which left each tumor free and independent of every other, and of the system itself.

With two exceptions, there was no connection between these tumors, and the walls of the abdomen. Under and immediately around the umbilicus there was partial attachment involving 6 or 8 inches of surface, between two of the tumors, and the abdominal wall; this appeared to be the result of the first incision, the coagulating lymph thrown out to unite the two edges, the tumors lying in immediate contact with these uniting surfaces, being firmly pressed upon them by their fellows within, were by the cellular substance freely distributed through the whole morbid mass slightly attached to the wall. No other attachment existed, either to the peritoneum or any of the organs.

The remaining fifteen tumors enumerated, were simply packed one upon another, with no connection except the cellular substance before referred to. The tumors were seventeen in number, and weighed in the aggregate, ninety-six pounds, varying in size and weight, from half an ounce to thirty-two pounds. After removal, each tumor was laid open to its center by my son, Dr. E. M. Stewart, and presented a fibrous center with adipose covering.

There was no appearance of veins or vessels, nor was there the stain of blood to be seen. No unpleasant odor escaped, nor was there fluid of any kind found among them. The peritoneum looked smooth and healthy, not a scar or spot indicating that inflammation at any time had existed, or that old attachments had been broken up. The ovaries small and healthy, menstruation having continued normal up to within two or three months of her death.

The ovaries, bladder, uterus, kidneys, spleen, liver, bowels, stomach, lungs and heart, were all carefully examined, and found in a natural and healthy condition. We were unable to trace these masses of morbid growth to any common origin. We decided them to be fibrous-adipose in character.

We think the worth of a Medical Journal article consists in a plain honest statement of facts. Governed by that view, we have made the report and propose to leave it to the readers of this article to draw their own conclusions, as to cause and character.

JAS. W. STEWART, M. D.
R. T. ABERNATHY, M. D.
WM. M. PRICE, M. D.
A. H. HENDERSON, M. D.
E. M. STEWART, M. D.

The sender of the above communication fails to give us any clue to his post-office, on which account we cannot send him a copy—ED.

II.

GALLSTONES SUCCESSFULLY TREATED WITH OLIVE OIL.

Reported by F. LOEBER, M. D.

Before relating these cases I deem it my duty to say that the treatment about to be mentioned, is not original with myself. I got it from a medical journal, published, I believe, in Wisconsin. It is now some years past.

If I remember correctly, the author of the article containing the treatment, excused himself for obtruding one more among the vast number of remedies for gallstone, with the plea that he had suffered from the affliction for several years, and had tried everything recommended by text books and journals without avail, and at last had been induced by a neighbor, a farmer, to try sweet oil. He did so, cured himself, and has since cured several other persons of the same painful trouble.

Fortunately for myself, I have never been a sufferer from gallstones, but I take the liberty of once more obtruding this homely, but effective remedy before the medical public.

The treatment as recommended, is to give the patient, after the bowels have been evacuted by a light laxative or water enema, a large dose of oleum olivæ, ℥x—xij.

After taking, the patient must remain perfectly quiet in bed, lying on the side with the pelvis slightly elevated, for, say, three hours, or until the oil begins to act.

In this way, I have treated five cases—all with the happiest results.

Case. J. K., forty-six years old, British seamen, entered the Touro Infirmary suffering from intense icterus, but no fever. Considerable tenderness in right hypocondrium; liver somewhat enlarged. Said that he left the hospital in Liverpool just before shipping for New Orleans, where he had gone with a similar attack of jaundice, which came on after a severe pain in his side and belly. *Diagnosis*—gallstones. Patient placed on light diet. Bowels freely evacuated by castor oil and turpentine. After that, ordered Carlsbad water treatment. All went nicely. The stools began to color, and the icterus to disappear. A week subsequently, at my evening visit, I found the man suffering from violent colic. His abdomen was swollen, and he vomited incessantly. Pulse quick and small: body bathed in perspiration. Ordered warm flaxseed poultice to patient's abdomen. Gave, hypodermically, morph. sulph. gr. $\frac{1}{3}$; atropiæ sulph. gr. $\frac{1}{48}$. Repeated morphine in half an hour without relief. Then resorted to chloroform inhalations for some two hours till the pain subsided, and sleep came on.

Next morning, much prostration, intense icterus, white stools. Repeated the castor oil and turpentine, and instead of Carlsbad water ordered Durand's treatment—three parts of sulph. ether, to two parts ol. terebinth—a teaspoonful every morning.

Things again went on nicely. The stools began to look natural; the skin to lose its yellow hue. In ten days, however, he had another attack, quite as violent as the first, and the same means had to be resorted to to relieve pain.

That evening, in looking over my journals, I came accross the "sweet oil treatment," and at once ordered the nurse to

give the patient a full water injection before my morning visit.

At 9 o'clock, A. M., gave him ol. olivæ, ℥xii, and saw that the position recommended was observed.

In two hours and a half his bowels began to move, and to my astonishment, such a number of stones was passed as to fill two ordinary strawberry baskets—nearly two pints—some as large as walnuts.

I ordered the nurse to clean and put them in a bottle, to be shown at our regular weekly medical meeting. But, unfortunately, in his zeal to preserve them, he covered them with alchohol. In consequence, they were almost totally dissolved.

After the lapse of a week, detecting slight tenderness and a little tumor in the right hypochondriac region, I repeated the oil, with the same result, only not so many stones were passed.

Three weeks later the patient left the hospital apparently well, but took care to provide himself with a bottle of sweet oil.

The four other cases were three females and one male—one being a lady sixty-five years of age. Nothing besides the olive oil was used on these patients. All of them discharged large quantities of stones, having suffered previously for many years. Since that time they have remained well. All four cases reside in the city, and I am able to keep them under observation.

III.

PAROTITIS ACCOMPANIED WITH ORCHITIS EVENTUAL SUPPURATION AND ATROPHY OF TESTICLE.

S. T. Armstrong, Asst. Surg., M. H. S.

P. S.; negro aged 25 years; a native of Louisiana; a roustabout on Mississippi river steamboats, came under my observation in the hospital on February 9th, 1882, suffering from a parotitis of several days duration.

Both parotid glands and their surrounding tissues were inflamed, causing some difficulty in swallowing; there was but slight febrile disturbance. On February 12th, an accompanying

orchitis of the right testicle supervened, and was treated in the usual manner.

He was discharged on February 18th, the parotid glands normal and the right testicle apparently so. He immediately commenced work, continuing his occupation until March 10th, when he came to me with an acute orchitis of the left testicle, which had existed for several days. A saline cathartic was administered, hot applications made to the scrotum, and he was ordered to rest in bed.

About March 14th, a fluctuating point was found on the anterior surface of the swollen scrotum, an incision permitting the escape of some bloody pus. A slight purulent discharge continued from the incision and it was gradually healing, when he deserted from the hospital on April 7th.

He again came under observation on .January 13th, 1883, and in making a physical examination I found the left testicle atrophied to one-fourth the usual size. The right testicle was normal, He stated that the left testical had been in that conddition for some months, having gradually grown smaller after leaving the hospital in April, 1882. The atrophy caused no interference with his sexual powers, as a recent case of secondary syphilis circumstantially testified.

The points of peculiar interest in the case are the orchitis of the left testicle three weeks subsequent to the supposed recovery from that of the right testicle and simultaneous parotitis; and the eventual atrophy of the left testicle which might be a result of the incision made to relieve the suppuration.

In this case it is difficult to state whether the atrophy resulted from commencing a laborious occupation before fully recovering, or whether it was the usual sequel of suppuration following orchitis.

Considering the previous inflammation of the right testicle, we may decide that the peculiar morbific causes of this accompaniment to parotitis were still in the system when the patient was first discharged from the hospital; and the three weeks interval between the inflammation of the right and of the left testicle was a prodromal period,—the atrophy being the sequel of the orchitis accompanying the parotitis.

IV.

INTERMITTENT DIARRHŒA CURED BY QUININE.

A Clinical History from the Case Book of Ward 35, Charity Hospital.

Reported by RUDOLPH MATAS, M. D.

The patient, Mrs. Mary M., presented herself at the morning clinic, as an out-door patient, February 16th, 1883. She is an intelligent German woman, and gives a very clear account of herself. She is 51 years of age; has resided in this city 34 years; has been married for the same length of time, and is the mother of several children. Her parental antecedents are good, both parents dying, in effect, of old age. She has lived of late years in an unhealthy (swampy) part of town, but has enjoyed excellent health, excepting in the last twelve months, during which she has been troubled with spells of diarrhœa, occurring at irregular intervals. Six months ago she began to notice that the periods between the diarrhœal paroxysms were becoming progressively shorter, though the attacks still came on irregularly and without any apparent cause.

Towards the last two months they have assumed a marked periodicity, "coming on regularly every other day."

The condition may thus be appropriately designated a tertian diarrhœa. The punctuality with which the gastro-intestinal disorder makes its appearance, is still more curious and interesting. At 12, P. M., precisely on every alternate night, she wakes up with "a disagreeable feeling about her stomach," nausea, tormina, and sometimes vomiting, accompanied or followed by frequent and repeated evacuations. The passages are at first feculent and large, but towards morning they become small and glairy. "The attack" usually ceases by morning, leaving her very much prostrated on account of the numerous evacuations which she has had during the night. Apparently, no chill or fever accompanies the paroxysms. During the interval between the spells she is left in comparative ease till the next choleraic period overtakes her, when she is thrown back in bed again.

She is now very thin, complexion sallow, and much weakened by the protracted derangement of her bowels. Has been under medical treatment during the greater part of her illness, but

has not obtained relief from the remedial agents thus far prescribed for her.

Treatment—In view of the remarkable periodicity of the attacks which had been so well noted by the patient herself, it was determined to try the virtues of the anti-periodic salt, par excellence, the sulphate of quinia.

As the patient informed us that she expected an attack that very night, having had a very violent spell of sickness the night before last, twenty grains of quinia in pill form were prescribed, to be taken that evening. She was instructed to report the next day. On the 17th, reported that she had passed a much better night than she had expected, as the bowels had moved but few times. The quinia pills were again recommended, but the next paroxysm was not fully aborted by it. Then, instead of the pills, the following preparation was prescribed. ℞.

Quiniæ sulphat.....ʒii.
Acidi sulphur. aromat.....q. s.
Tr. opii.....ʒi.
Elixir adjuvantis (Caswell & Hazard)...ʒi. M. ft. sol.
S. 1 teaspoonful ever hour till four teaspoonfuls are taken.

This was ordered to be taken during what might be styled "the stage of intestinal calm," in order to abort, if possible, the impending attack. Our instructions were carried out, and we had the pleasure of seeing our patient free from her curious but dangerous ailment.

Reviews and Book-Notices.

A Treatise on the Practice of Medicine for the use of Students and Practitioners. By Roberts Bartholow, M. A., M. D., LL. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, etc., etc. Third Edition, revised and enlarged. New York: D. Appleton & Co., 1882. New Orleans: Armand Hawkins. 8vo., cloth. [Price, $5.]

The rapid sale and exhaustion of two previous editions and the demand for a third so soon after their publication, is a flattering testimonial to the value of this work of Professor Bartholow. The positivism in therapeutics, which is characteristic of the author, renders the book one especially fitted for students and young practitioners, whose experience has not been sufficient to allow them to know what remedies will produce certain results, and what will dissappoint.

Although it may be said that he is too dogmatic and oversanguine in regard to the therapeutics of drugs and the results to be obtained by treatment in disease, still the error, if error it is, is on the right side, and more to be commended than the matter we find under "treatment" in the majority of text books, which in the main consists of a long array of medicaments and methods, leaving the reader to make his own selection. Prof. Bartholow's system of treatment is founded upon *rationalism*, and his large experience in experimental therapeutics, with the deductions which he has drawn therefrom, render him peculiarly fitted to speak in positive terms in regard to how certain indications are to be met, and what drugs will prove beneficial in particular conditions.

The author states that he has received numerous encouraging reports from correspondents upon the results of his system of treatment, and requests that the results obtained by others will be reported, whether favorable or unfavorable. It is hoped that this will be done "in the interests of scientific truth, to silence the cavils of therapeutical nihilists on the one hand, or the claims of therapeutical optimists on the other."

The work is thorough and concise, many subjects being treated of, which we do not generally find in the text books. For instance, the diseases of the pancreas, receive their full share of attention, a subject which is ommitted from most works on practice.

The author rejects the theory of jaundice being produced by disorganization of blood and the separation of hæmatoidin, and that of jaundice by suppression, and maintains that there is only one way in which jaundice is produced, i. e., by re-absorption into the blood of bile already formed in the liver. In

this the author is at variance with Frerichs, who holds that jaundice may be produced through some alteration in the metamorphosis of substances in the blood, independent of any affection of the liver or ducts, and although no one has yet succeeded in separating bile pigment from the blood, still, Valentine's experiments have proved that a substance can be extracted from the coloring-matter of bile possessing all the characteristics of hæmatoidin.

In regard to the treatment of parenchymatous hepatitis, we must take issue with the author who says, "as suppuration occurs so promptly after the initial hyperæmia, it is doubtful whether any effort to prevent the formation of pus can be successful." The results of Dr. W. Stuart's (East India Service) treatment of acute hepatitis with the muriate of ammonia (*London Lancet*, Aug., 1870), show that in a large number of cases suppuration was prevented when treatment was begun in the initial stage.

With the recent spread of small pox throughout the United States, came a craze for revaccination, and consequent immense demand for bovine virus, which propagators were unable to supply. While agreeing with the author in his preference for bovine virus, we also heartily concur in his words, as follows: "When there is some special exposure to contagion, revaccination should be practiced; but as a rule, and entirely irrespective of contagion, revaccination should be done about the fifth year, after the second dentition, and at puberty. If properly done at these times, further vaccination will be unnecessary."

In the treatment of erysipelas the very important results obtained, first by Kunze and afterwards by others, from the hypodermic injection of carbolic acid are not mentioned. Especially is this observable when Bartholow himself has obtained the same results, as stated in his work on hypodermatic medication. Whether erysipelas be a zymotic disease or not, the treatment by carbolic acid has proved in our hands the best in cutting short the duration of the disease and securing its rapid disappearance, and its omission from the methods of treatment is probably more inadvertent than intentional on the part of the author.

We are pleased to note that the author rejects the term *typo-malarial* fever as applied to a distinctive disease, and which has been adopted by many upon the suggestion of the late Dr. Woodward, of the U. S. Army, who at first supposed that its pathology differed from that of typhoid fever, but who afterwards learned his mistake and admitted before the International Congress that he was wrong in that assumption. Malaria complicated with typhoid fever does not warrant the application of a distinctive appellation any more than when complicated with other diseases and we entirely agree with the author in saying that, the "introduction of the term typo-malarial was unfortunate—the more especially as, since the claim for its distinctive type having been permitted to go uncorrected for ten years, it has been widely received, generally employed and has therefore years of usage to enhance its duration."

Eleven and a-half pages of the work are devoted to the subject of yellow fever, and the majority of physicians in the South will agree with the author in his clearly defined etiology. He rejects very properly the theory of personal contagion, and in a few words grasps and elucidates the manner of its spread. While making every allowance for the limited experience of the author (which "was confined to a few cases seen at Cincinnati in 1880"), we are forced to call attention to a few important points connected with the subject. On p. 763, he says "the delirium and obstinate wakefulness of some cases require morphia and atropia (the latter in small proportion), hypodermatically." This is dangerous practice, inasmuch as morphia in sufficient doses to quiet the delirium is very prone to cause suppression or retention of the urine (we have seen it do this), a complication which always increases the gravity of the case. Physicians of large experience in this disease, all agree that nothing is so efficient in controlling the delirium as chloral, administered by enema, when there is reason to fear gastric disturbance from its use.

Nothing is said in regard to the means to be employed when diminished secretion or suppression of the urine occurs, a complication which, unless immediately relieved, proves rapidly

fatal, or the subcutaneous administration of ergot to arrest hemorrhage from the stomach (black vomit) or other situation.

To sum up, we commend the happy faculty which Prof. Bartholow has of giving graphic outlines of diseases, making a picture, as it were, so that one gets a comprehensive idea of etiology, pathological anatomy, symptoms, etc. It is a valuable work as a text book for students, or book of reference for the busy practitioner. It has met with such appreciation that it is now being translated into Chinese.

On Prehistoric Trephining and Cranial Amulets. By Robert Fletcher, M. R. C. S. Eng., Act. Ass't Surgeon, U. S. Army. Washington, Government Printing Office.

This interesting brochure is part of the contribution to Vol. V. of North American Ethnology. Most of the literature pertaining to the subject—the greater part being fragmentary—is passed in review, and much curious information is given in regard to trephining. It was the opinion of Broca that during the neolithic age, trephining was practised upon young children for the cure of certain maladies. This was termed *prehistoric surgical trephining.* The skulls of these trephined individuals, being supposed to possess unusual qualities, had subsequently amulets and roundelles cut from them. This was *posthumous trephining.*

The evidence for M. Broca's conclusions is concisely drawn, and the reader feels that it wears, if not the stamp of certainty, at least that of great probability.

But the part that concerns us most is trephining as a surgical operation. What lessons does it teach us? In the first place, that the operation was one of comparative frequency. In the next, that it was one of comparative safety. To give the per centage of cures is impossible, but there can be no doubt, from the number of crania examined, about there having been many recoveries. From one cavern alone as many as sixty specimens of trephined crania and amulets were taken, two in which the operation had been done twice.

Of late, anatomists and physiologists have undertaken to

map out the convolutions of the brain, and to furnish charts representing its cranio-cerebral topography; on which account trephining has developed into a most scientific surgical procedure. The functions being localized, the indication for trephining is over the seat of the function impaired. This method was introduced by Broca, and it has evidently one enthusiastic adherent, M. Legouest, since he is quoted as saying: "Singular as it may appear, I think the rule is that you should always trephine when you are doubtful whether it ought to be done." M. Legouest will doubtless have a slender following.

We read that the practice of trephining is quite common among the Kabyles of Algeria, being resorted to for various ills. The natives do not regard it as particularly dangerous, and the *thebibe*, a cross between surgeon and priest, insists that it is always successful. This is false of course. Nevertheless, the human skull, like the human peritoneum, will bear more rough handling than enlightened surgery has been in the habit of teaching. But, in the meantime, there are several things to bear in mind. Primitive people bear wounds better than civilized ones. Dogs and sheep bear trephining with very little danger. It is probable that the people of the neolithic age had almost or quite as much physical resistence as dogs or sheep. The farther the remove from civilization, the greater the recuperative power.

We know, personally, that wild animals bear cutting operations better than those domesticated. A Texas cow-boy will lasso, and in the deftest manner possible remove the testes of half a dozen prairie colts, while a veterinary surgeon is preparing to castrate a thorough-bred. Bad results among the mustangs are about one in a thousand.

All this is to be borne in mind when trephining comes to be done; and now, that the localization of function is likely to receive determinate limits, it will probably be performed with increasing frequency.

Dr. Fletcher's monograph contains much, though in limited space, which we have omitted to notice, of particular interest to those ethnologically inclined. The text is aided by plentiful

illustrations, and it is indexed with the completeness due a portly tome.

Scrofula and its Gland Diseases. An introduction to the General Pathology of Scrofula, with an account of the Histology, Diagnosis and Treatment of its Glandular Affections. By Frederick Treves, F. R. C. S., Eng. Philadelphia: H. C. Lea's Son & Co. (Price, ten cents.)

This is one of the dime books published by the above named firm. It is not to be inferred, however, that it bears the same relation to medical works, that dime novels do to the productions of standard authors; for it seems to have been written without too much haste, and by a competent person.

The author's alleged reason for writing his monograph, is the importance of the disease, and the slender amount of literature on the subject; besides, the advances in microscopy and pathological science and in clinical studies generally, have cleared away much of the mystery that hangs about it. From his preface we learn that, while he has availed himself of the pathological researches of recent German and French observers, his work is in the main the fruit of original investigation.

At the outset he calls attention to the vagueness of our conceptions in regard to the definition of Scrofula. He refers to the fact that we have no hesitancy in saying "slightly strumous," while no one would be guilty of saying, "slightly cancerous." The reason is apparent: Struma is the beast of burden upon which are placed weakness, feebleness, and all the unassignable ills that flesh is heir to.

In chapter first is shown the relation between tubercle and the scrofulous process, and in plain language the histo'ogy of tubercle is given. The latter is admitted to be found in scrofulous lymphatic glands, cold abcesses, joint diseases, but not always. The author believes that scrofula is a milder form of tuberculosis. A chapter is devoted to the inoculability of tubercle; the experiment of Klebs, Hueter, Schiller, and others are mentioned; and the question is left in *statu quo*—the views of Koch being at the time unannounced. Another

chapter is given to defining scrofula, and another to showing the relation between it and phthisis. Dr. Treves is evidently not alone with recent views, since he believes that the two affections are due to the same morbid process. He affirms that measles may cause either or both.

Part second deals with scrofulus affections of the external lymphatic glands, giving their etiology, pathology, symptoms and diagnosis, together with a brief anatomical outline of the glands themselves. Accepting the author's views as laid down in part first, what he has to say under different heads is well worth reading. Much of it in any case.

Knowing his opinion in regard to the pathology and etiology of scrofula, the reader is prepared to assume in regard to his treatment, that it contains nothing new. Cod liver oil stands in the foreground; iron next. Scrofulus glands are dealt with according to the usual plan, except that they are sometimes treated with the thermo-cautery—very good, but, we believe, not very common practice.

It may appear that we have given a good deal of space to a seventy-seven page, ten cent, medical publication, but the work deserves all and more than we have said, for it is cheap in nothing but paper and binding, and they are better than the cost would warrant. Since the revelations of Koch, the word "*tubercle*" is imbued with fresh significance, and the whole question is under review. For this reason, the views of of Dr. Treves, which, for the most part, are conservative, and, as one might say, old fashioned, may, at this time be submitted as a timely contribution to the subject.

A Treatise on Fracture. By Lewis A. Stimson, B. A., M. D., Professor of Surgical Pathology in the Medical Faculty of the University of the City of New York; attending Surgeon to the Bellevue and Presbyterian Hospital, New York; member of the New York Surgical Society. With 360 illustrations on wood. Philadelphia: Henry C. Lea's Son & Co. For sale by Armand Hawkins, 196½ Canal street, New Orleans. [Price $4.]

Undoubtedly the author has given to the medical profession in this treatise on fractures, what is likely to become a stand-

ard work on the subject. It is certainly not surpassed by any work written in the English, or for that matter, any other language. Perfectly conversant with the American, English, French and German medical literature, the author tells us in a short, concise and comprehensive manner, all that is known about his subject. There is nothing scanty or superficial about it, as in most other treatises; on the contrary, everything is thorough. The chapter on etiology, general diagnosis repairs, synarthrosis and delayed union, are very good. The author not only gives us the views of older authors, but also those of more recent ones, even up to the present day. The chapters on repairs of fracture and their treatment, shows him to be not only a profound student, but likewise a practical surgeon and pathologist. His mode of treatment of the different fractures are eminently sound and practical. Not wedded to one mode of treatment, he recognizes and gives credit to all the various deserving modes of other authors.

As said before, we consider this work one of the best on fractures, and it will be welcomed, not only as a text book, but also by the surgeon in full practice.

The paper and printing are solid and good. Author and publisher have done their work well.

The Pharmacopœia of the United States of America, Sixth Decennial Revision. By Authority of the National Convention for Revising the Pharmacopœia, held at Washington, A. D., 1880. New York: William Wood & Co., 1882. For sale in New Orleans by Armand Hawkins, 196½ Canal street. [Price $4.]

The sixth decennial revision of the Pharmacopœia of the United States of America, is essentially different from any previous edition. While it must be admitted that many valuable drugs and chemicals have been added to the long list of therapeutical agents, it must also be conceded many obsolete drugs have been retained, and some even added: azedarach, chiretta, emplastrum ferri, scoparius, cassia fistula, and many others of the same sort, tend only to encumber the work.

Pilocarpus and erythroxylon (jaborandi and coca) which

have been added, are very poorly described. Especially is this the case with coca. There should at least have been some allusion made to the fact that the leaves of dark brown color are inert, and that only those of a light green color and decidedly aromatic taste ought to be dispensed.

A valuable addition would have been to give like many European pharmacopœias a table of the *doses maximi seu heroici* of narcotic and poisonous drugs. Also to designate which drugs and chemicals come under the classification as poisonous.

For such important drugs as ergot and ipecacuanha, an assay for ergotine and emetine should surely have been given, as the appearance only of these drugs, by no means gives an exact idea of their value.

We find a very good formula for fluid extract ergot and for extract of ergot, but should have wished to see a formula for ergotine proper, a preparation free entirely from fatty matter.

Santoninate of soda is so seldom used, that it could have been easily omitted, the santonine being more efficacious and nearly always preferred. The salicylate of physostigmina has been added, but as a great many ophthalmists use the sulphate, and this salt is also better known, it should certainly have found a place in the new work.

Narceine, so valuable in confinement where morphia and codea are undesirable, also colchicine and other equally potent and specific agents, have not found grace in the eyes of the Revising Committee.

The dermatologist has in the new edition a good formula for Hebra's ointment, but the description of his highly valued sapo viridis, is of the vaguest kind. Are we allowed to prepare the soap from cotton seed and lard oil, or from oleum raparum, or from fish oil, or should a soap be prepared from olive oil. We are simply told that it is a soap prepared from fixed oils.

A far better, and nicer confection of senna could be prepared, than that of the given formula; prunes, figs and cassia fistula are unnecessary. Good powdered senna with tamarind pulp and cream tartar added, and the necessary sugar and

coriander make a far better confection than the kitchen receipt given in the new edition.

The *modus operandi* for mel despumatum is a very poor and empiric one, and will seldom yield a clear transparent product

Suppositories are directed to be made by melting the coca butter, which often causes an unevenly mixed mass. Far preferable is it to either make with coca butter grated to a mass and pressed in a specially constructed machine, or reduce the mass to a proper consistency in a moderately warm. mortar and roll the suppositories out on a pill tile.

The old standard formula for tinctura opii simplex had to go, and a new and stronger one has been formulated. In Wood and Bache's Dispensatory it is justly stated. "Innovation in so important a preparation, and one in which uniformity is so desirable, should be avoided, unless shown to be necessary." Where is the necessity to make laudanum 20 per cent. stronger? Having incorporated elaterin the centesimal, or if you prefer, the 2d decimal trituration, it is inconsistent, not to have other homœopathic triturations, like arsenic the first centesimal, embraced in the new work.

Why is the salicylate of eserine mentioned and the sulphate (a preparation more in use) omitted.

The whole candy or lozenge division ought also to have been omitted, and it should be left to the physician proper to make his own formulas. The pharmacopœia in taking up this lozenge affair, is working directly into the hands of the many manufacturing humbugs, who impose upon the medical and pharmaceutical profession alike, and who only too often make the modern pharmacist a brainless tool in their hands.

Everything pertaining to chemistry has been ably treated in the new work, and deserves exceeding praise.

Pocket Therapeutics and Dose Book. By Morse Stewart, Jr., B. A., M. D. Third Edition, revised and enlarged. Detroit, Mich.: Geo. D. Stewart & Co. 1882.

This little book is intended as a pocket companion to the physician, "simply to serve as a *reminder*, to be referred to

in emergencies and cases of doubt." The object is well fulfilled. The list of all drugs in the pharmacopœia is arranged alphabetically in tabular form, giving the name, dose for adults, expressed in grains and grammes, and their actions and uses.

As a ready reference book the physician will find it useful; and although there are numerous typographical errors, there are none that we can find of any importance, more care having been apparently given to the proof reading of the doses of medicines than to the rest of the work, and although the errors noticed caused us to search carefully for errors in dosage we failed to find any.

Esmarch, Antisepsis and Bacillus. Annual Address before the Philadelphia Academy of Surgery, January 8th, 1883. By William Hunt, M. D., Senior Surgeon to the Pennsylvania Hospital.

Some of the secular press has said that there was much of resemblance between Gambetta and the late President Garfield. There was also something alike in their untimely taking off. Their fates ran parallel in still another line: they fell to the care of distinguished medical men, each in his own country, and the treatment of the illustrious sufferers, has had to submit to the hypercritical judgment of two German surgeons, and be condemned.

The *British Medical Journal* has had something to say about the critism on Gambetta's surgeons, but if it had not, we have no idea of doing so, being content to leave the matter with the French surgeons, who, we imagine, will be able to take care of themselves. Nor do we intend to say much about the other case, for the very good reason that Dr. Hunt has done it quite effectually.

We cannot furnish citations, for lack of space, suffice it to say, Dr. Hunt takes up, seriatim, the comments of the great German surgeon, and refutes them with others quite as brief, usually caustic, sometime amusing, always in good taste. His reply to Esmarch is another case in point of the great advan-

tage in regard to all matters, of being well armed with facts before going into print.

We did hope that this unfortunate case, like the chief personage concerned, was laid in the grave, because we cannot forget the harm which the medical profession insisted upon deriving from it for its own use: but we are not sorry that it has been revived once more after the fashion adopted by Dr. Hunt, for we feel sure that many of those who read it, will have their minds cleared in regard to the fate of President Garfield.

Dr. Hunt has also something to say about the now famous bacillus tuberculosis. He believes that it has really been demonstrated by Koch, but doubts the role assigned to it as an infectious germ. He referred at the same time to the researches of Schmidt in the same direction, and took occasion to pay this distinguished micrologist a high but well deserved compliment. We know Dr. Hunt; we put on a dissecting gown, for the first time, under his eye, and we feel glad to hear such praise, for Dr. Hunt, unless he has changed with age, does not scatter his compliments broadcast.

Compend of Anatomy. For Use in the Dissecting Room, and in Preparing for Examinations. By John B. Roberts, A. M., M. D. Philadelphia: C. C. Roberts & Co.

This little book is intended for medical students, and evidently has suited the demand, since it is now in the third edition. Short cuts to knowledge are not the ones to choose, neither, in our opinion, are they the ones to provide; but, in view of the immense numbers of students at present engaged in wrestling with the difficulties of anatomy, at the same time taking into account the differences in capacity for acquiring anatomical knowledge, something like the present compend must be compiled and published, or the vast army of medical graduates will fall off, and thereby cut down the lists of the diploma mills. But the mills *will* go on grinding in spite of the *medical schools*, and while they do "Compends of Anatomy" *will* be sought for. So long as they are, let us have good ones, —something like the one before us.

Illustrated Quarterly of Medicine and Surgery. Vol. II., No. 1. 1883.

This work, which was begun as a new venture in medical journalism by Profs. George Henry Fox and Frederic R. Sturgis, enters the second year of its publication with the positive warrant of success, and the list of prospective contributors for 1883, consisting of more than thirty names well known to the profession, foreshadows what the coming volume will be.

The present number contains thirty-four illustrations, very well done, with explanatory text.

Practically, it is a medical journal, its aim being to present descriptions of interesting cases from a practical point of view, suitably illustrated. Published by E. B. Treat, New York, at $8 per annum, and furnished to subscribers only.

Publications Received.

Allen's Human Anatomy, Section II, Bones and Joints, and Section III, Muscles and Fasciae.

A Manual of Histology. By Thos. E. Satterthwaite, M. D.

A Treatise on Fractures. By Lewis A. Stimon, B. A., M. D.

A Treatise on Practice of Medicine. By Roberts Bartholow, M. A., LL. D., M. D., etc., etc.

Illustrated Quarterly of Medicine and Surgery. Vol. II, No. 1.

Compend of Anatomy, for use in the Dissecting Room and for Students. By John B. Roberts, A. M., M. D.

On Prehistoric Trephining and Cranial Amulets. By Robert Fletcher, M. R. C. S., Eng., Assis't Surg. U. S. Army.

Management of Chronic Inebriates and Insane Drunkards. By Albert N. Blodgett, M. D.

Address of Dr. T. Green, before the American Academy of Medicine.

Annual Report of Massachusetts Eye and Ear Infirmary.

Bromide of Ethyl. By Julius J. Chisolm, M. D.

Suicides in New York City. By John T. Nagle, M. D.

Scrofula and its Gland Diseases. By Fred. Treves, F. R. C. S.

The Physiology of Alcoholics. By W. B. Carpenter, M. D., LL. D., F. R. C. S.

Abdominal Section in the Treatment of Ulceration and Perforation of the Cæcum and Appendix Vermiformis. By William A. Byrd, M. D.

Pocket Therapeutics and Dose Book. By Morse Stewart, Jr., B. A., M. D.

Esmarch, Antiseptis and Bacillus. By Wm. Hunt, M. D.

Best Method of Treating Operating Wounds. By Henry O. Marcy, A. M., M. D.

The Placental Developement in Mammals. By Henry O. Marcy, A. M., M. D.

Excision of the Portion of the Alimentary Canal covered by Peritoneum. By William A. Byrd, A. M., M. D.

What Shall We Do for the Drunkard? By Orpheus Everts, M. D.

Reports of Proceedings of Societies.

ATTAKAPAS MEDICAL ASSOCIATION.

[We have received a copy of the Proceedings of the Attakapas Medical Association, and the Address of the President, Dr. F. Thomas, with the request that we publish the same. This is a step in the right direction, inasmuch as the deliberations and discussions of parish medical societies almost always contain matters that would prove of interest to practitioners, outside of the vicinity in which the meetings are held, and we will always be glad to receive, and trust that secretaries of local societies will send us their, proceedings for publication.]

The Attakapas Medical Association met at Jeanerette, Iberia Parish, Louisiana, December 12th, 1882.

After the usual routine of business the President, Dr. F. Thomas, delivered his annual address (published below).

The thanks of the Association were, by a unanimous vote, tendered Dr. Thomas, and it was ordered to have a copy sent to the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, with the request to have it published.

On a question from the chair, for information: "Have druggists the right or privilege to repeat or duplicate, from their file-book, the prescription of a physician, without a verbal or written order from the author of that prescription?"

The answer of the Association was a unanimous vote in the negative.

The committees on essays were not ready to make written reports. Dr. A. Maguire, chairman of the committee to report on Dysentery made a verbal report. On motion, the committee on Dysentery was continued, with the addition of other members.

Besides Dr. A. Maguire and Dr. Felix Guilbeau, the chair appointed Dr. Minvielle, Dr. W. M. Richardson, Dr. Woolf, Dr. F. L. Richardson and Dr. Blanchet, on said committee, with the request to have written reports ready for the next meeting. Voluntary contributions were also respectfully solicited from other members of the Association.

On the grant of privilege, Dr. Maguire, calling the attention of the Association to his verbal report on Dysentery, said that in making a division of the disease into different forms, he had done so for practical purposes and that in this affection certain predominent symptoms certainly justify the practitioners to make such a division. He asked the committee to note these forms and to state, if in their experience, the terms hemorrhagic, intermittent and catarrhal, do not justify the physician to make such a division, and to base his treatment accordingly.

There being no other business before the society, on motion the meeting was adjourned to meet in New Iberia, on the first Tuesday of May, 1883.

ADDRESS OF THE PRESIDENT, DR. F. THOMAS.

Gentlemen: In assuming the duties required of me as your presiding officer, I deem it proper to thank you for the unso-

licited honor you have conferred on me. I feel assured, beforehand, that each and every one of you will cheerfully afford me every requisite assistance in the discharge of the duties required of me. I dare hope, also, that the good will and harmony that has heretofore characterized our meetings, will continue to prevail in the future.

The Attakapas Medical Association is now entering upon its third year of existence, and I think I may say, usefulness as well; for it has at this time on its roll of membership a respectable number of medical gentlemen, who, by their united efforts in one direction, have caused their influence to be felt and harkened to, in the legislative halls of the State. If, in so short a time, we have accomplished this much, I think we may reasonably expect to accomplish much more in the future. This is a progressive age, and we should take no step backward.

Our semi-annual meetings bring together medical men from nearly every parish in the Attakapas country, uniting them more closely in the bonds of friendliness and by their numbers and their upright bearing, impressing upon the general public a higher regard for the profession.

Whilst we have already given to the association a fair start, it will depend largely on the zeal and perseverance of its younger members, to assure it a permanent success. We number among us several young gentlemen, just entering upon their professional career, who possess in an eminent degree all the requirements necessary to achieve for our association a standing second to none in the State.

Owing to the amount of sickness prevalent in my neighborhood during the fall and early winter, and the consequent worry of mind and the physical labor that I have been subjected to, I have found it impossible to prepare an address on any one particular medical subject.

I will, therefore, on this occasion, refer to a few rules that I have tried to follow during my career as a country doctor.

Trust not to Appearances.

Some twenty-six years ago I began practice as a country physician, and have been toiling in the same field ever since.

At the outset, I was hopeful and had abundant faith in the future. My earliest experience, as you will learn, was not cheering. The very first case to which I was called was that of a child with scarlet fever. I at once secured the advice and assistance of a confrere, at that time a distinguished professor in the medical department of the University of Louisiana. After many anxious days of watching and nursing and physicing, I entered the sick room one morning to find my little patient sitting up in bed, conversing with the family, suffering no pain, and asking for food. The poor mother and her family were delighted at the apparent change that had taken place for the better. I must confess that I thought the little one safe. Presently, however, the old professor entered the chamber, and at once approached the little one apparently pleased at what he saw. But no sooner had he touched the child's forehead and felt of its pulse, than a sudden pallor overspread his countenance that none present could mistake. Gangrene had set in and death was at hand. No doubt all of you have had similar cases to deal with, and have been witnesses to similar scenes.

I have related this case simply to show the importance of being ever vigilant and on guard against appearances.

Caution in the Ordering of Medicines Necessary.

Judging from my own experience, I think I can safely assert, that medicines frequently do harm, not because they are not proper or applicable to the case in hand, but owing rather to the directions having been misunderstood, and the medicines wrongly given. I believe it, therefore, to be a good and safe rule, to avoid as far as compatible with the safety of the patient, the prescribing of such drugs as may by any mischance put life in danger; especially should this caution be taken in those cases where the doctor, either on account of distance or other causes, can see his patient only at long intervals. I have frequently lost much valuable time in explaining to persons how to make use of such and such medicines, and have had to leave at last, fearful that my instructions would possibly not be faithfully observed.

Be Careful in your Diagnosis before Expressing an Opinion.

This is a very important rule, as serious mistakes are sometimes made. Perhaps some of you gentlemen here present, may recollect an incident that happened many years since at a clinical lecture delivered at the Charity Hospital by Louisiana's great surgeon, the lamented Dr. Warren Stone. The doctor had before him on that occasion a patient with a swelling in the popliteal space. After the delivery of one of his characteristic lectures of half an hour's duration, to a large and attentive class, explaining minutely the different diagnostic symptoms between an aneurism and a phlegmon, he unhesitatingly pronounced the case in hand to be one of ordinary abscess, and proceeded at once to open it. The gush of blood that followed the incision told a different story. Ever cool and collected, he at once, without a word, cut down upon the artery above the wound and ligated it. His task completed, he took a long survey of his class, and spoke these few words, "Gentlemen, I have made a mistake; let my mistake be a warning to you." *If such a surgeon could make such a mistake*, what may not happen to ourselves. A similar accident to a country doctor would give him an unenviable reputation indeed.

What are our obligations to each other and to our patients, and what are the obligations of our patients to us?

These questions I consider pertinent to the occasion, and will proceed to offer a few remarks elucidating the same. Our profession is rapidly multiplying in numbers. Its members are elbowing each other in every locality; each striving to establish a practice and earn a living. In this strife for fame and fortune are those rules of right and justice, by which we should be guided, always observed? I think not. In this headlong race, the aim and ambition of at least a few, seems to be to get a big practice, cost what it may, and in their efforts in this direction often inflict a wrong to others. There are many ways in which an injury may be done, and that too, without any deliberate intention of so doing. For instance, we may be called to a case already seen by a confrere, and not made aware of the fact, either because we have neglected to make due inquiry or

because the same has been concealed from us from interested motives. We may prescribe for the case, and possibly give advice and order medicines at variance with those already given and prescribed, thereby not only wronging a confrere, but, in a measure, degrading the profession as well. Or we may inflict a wrong by being too officious in recommending this or that measure in the sick room, or by hinting even at this or that treatment in the case, for it should be remembered, that when consultations are asked for, the parties so asking will be found constantly on the alert, to catch at the least remark made militating against the treatment of the doctor in attendance; especially will this be found to be the case, when the parties interested are not fully satisfied with the course of treatment pursued. Nothing in regard to the case or its management should be mentioned before the sick person. Not the slightest hint at this or that treatment should be indulged in, for even a shrug of the shoulders, a toss of the head or any other little movement of disapproval, may influence an anxious patient's mind against his attending physician, and should be studiously avoided.

There is still another practice that should not be passed over without censure. I refer to that unprofessional one, of giving gratuitous advice and the offering of prescriptions without compensation, and the more especially is the same reprehensible, when given or offered to those who usually employ another physician.

We are sometimes called to a case already under treatment, and if we find it to be one of such urgency that delay might prove dangerous, it would then not only be proper, but it would be a duty to prescribe; provided, however, that our ministration should cease here and the regular physician sent for. Should we do otherwise, and take advantage of the occasion to seek to ingratiate ourselves in the good will of the family with the view of retaining their practice, we would be commiting an act unworthy our calling.

By being ever just to each other and by rendering mutual assistance, we will contribute to raising the profession to a

higher level; so high in fact, that the large number of quacks now infesting the country, could not find an abiding place among us. As it is at present, the country is flooded with them; ignorant men and women, who are daily being consulted and employed, not only by the lower classes of society, but by those of a higher social scale.

There is still another subject to which I wish to call your attention on this occasion. I often hear this doctor or that one, claiming to be the family physician of such and such persons. Now I ask in all candor, can any of you truthfully lay claim to any such title or privilege, except in a very few cases indeed. Judging from what I have seen, I would say, lay not such flattering unction to your souls, gentlemen, if you wish not to meet with disappointment. To those who employ us, we should feel grateful for their confidence, and give them the full benefit of our skill and experience. We should be kind and gentle towards the sick, especially so to our little patients, for a very feeble effort in that direction will often win their confidence and save us a world of trouble in our examinations. In no case should we give countenance to the habit, that some foolish parents have, of using the doctor's name as a bugbear to frighten their little ones into submission.

In conclusion, I will reply briefly to still another obligation and one I think of major importance to us all. And here I do not mean those delicate attentions that one person owes to another in all the different walks of life, but to those more substantial ones due to us from our patients, and which enable us to honor our debts, and provide for the necessaries of life. It is true that in our daily practice, we frequently meet with high minded and honorable men, who make it a duty and a pleasure, to give "unto Cæsar what belongs to Cæsar." But there is another class of individuals, and they are by no means few in numbers, who make it a habit to call upon the doctor for the most trivial ailment and that too, at all hours of the day and the night, and although he responds to the call at once, and does all in his power to render assistance, still they will not be satisfied. They will complain that he

has been slow in coming, or that he should have provided all the medicines necessary for the case, and not put them to the trouble of sending to the druggist. Such persons, you will admit, are disgustingly exigent, and you will generally find them slow to respond when their accounts are presented. During my practice of medicine, which has been a protracted one, I have frequently met with persons, who would openly boast of the fact, that they had found it an easy matter to secure all the medical assistance necessary free of cost. If one doctor would leave them in disgust, another could always be found to take his place.

I take all this to be an abuse, that should be taken in hand at once and corrected. I believe this can be done by unity of action on the part of the medical profession, and through the individual efforts of each of its members. The methods to be used in the attainment of this end I leave to your deliberations.

Medical Items

Expulsion of Four Hundred and Forty-One Lumbricoid Worms within Thirty-Four Days.—E. P. (female), age, seven years. Had been complaining for months of colicky pains in the abdomen and of sick stomach. Her face would change color frequently; sometimes pale, and at other times flushed. Her skin was usually of an icteric hue, appetite variable, bowels usually costive, but always responded easily to medicine. Slept well at night. No nervous disorders. She had been treated at various times for biliousness and for worms by other physicians as well as by myself. For the latter condition medicine yielded a negative result. She had never at any time passed any worms.

On Sunday, April 16th, she was again brought to me for treatment, more particularly for the flushing of the face, the yellow condition of the skin, and for cramps in the stomach. Her father stated that, while visiting in the country a week previous, she had a fainting spell, for the cause of which the doctor who saw her could not account. He, however, prescribed some worm powders, which failed to expel any worms.

Again suspecting worms as being the cause of her trouble, I determined to push treatment farther. I ordered powders of calomel and santonine, one of which was to be given every night and morning. After two powders had been taken, twenty-five lumbricoid worms were expelled; after two more powders had been taken, forty-five were passed at once. Four more powders brought twenty-eight. Thinking all had been expelled, I determined to wait awhile to see whether or not she would have any evidence of others remaining. After an interval of two days her pains increased, and she would complain of a sensation in her throat, as though something was crawling up. I again ordered powders as before, and continued them, with occasional intermission for two weeks.

During this time she was passing worms in small numbers, until the total had reached two hundred and eighty, At this time, owing to intense pain in the region of the kidneys, I was compelled to stop the powders and give anodynes for a day or two. Bicarbonate of soda and infusion of quassia were then ordered, and given for several days. While taking this last mixture worms were still passing, in numbers of one, two and three at a time. The following mixture was given three times a day:

℞ Ol. Chenopodii - - - - gtts ivss.
Ext. Spigelii et Sennæ Fluidi - - 3 i.

This was continued at intervals until the twentieth of May, when the last worms were expelled.

While taking this last medicine she expelled one hundred and sixty-one in lots varying from one to thirty-five at a time. In one night as many as ninety were voided; the total number amounting to four hundred and forty-one in thirty-four days.

After one week had elapsed her feces were examined with the microscope, and ova were found. Powders were again ordered, but failed to expel any worms.

In one week from the time the last were passed she had gained five pounds.

Larger numbers than these have been reported, but such a number in so short a space of time I believe to be infrequent.

Ransom, in his article on intestinal worms, says that cases are recorded in which various numbers, from two hundred to twenty-five hundred have been expelled from one person with a few months. Cruveilhier cites a case of an idiot in whose intestines one thousand were found. Dr. Condie has known as many as one hundred and twenty to be voided in a single day by a child five years old. Dr. Meigs says: "I have never myself known more than six, eight or ten to be expelled within a few day's time, and very generally there have not been more than three, four or five. Henoch states that he remembers a case in which whole vesselsful of round worms

were passed for a number of days in succession. Bartholow says there may be one, two or three worms, or they may reach five hundred or a thousand.—*A. C. Pole, M. D., in Baltimore Med. Chronicle.*

Sir William Gull on Scientific Medicine in General Practice.—In the course of an address delivered on January 17th, before the Metropolitan Counties Branch of the British Medical Association, on the subject of the Collective Investigation of Disease, Sir W. Gull observed: "It will be admitted that, had we leisure, proper means at our disposal, and from previous training a fitness for exact observation, we should find in general practice one of the most valuable fields of pathology, as here and here only we have before us the earliest signs of departure from health, and the only opportunities for tracing the course of a disease from its beginning to its end. Having passed many years in the hospital and private practice, I have come to see that experience gained in the latter is necessary for the correction of that acquired in the former, especially as helping towards a truer pathology. It will perhaps, and naturally, be objected, that it is almost impossible to organize for any useful purpose the labors of men already overburdened by the cares and fatigue of practice; and that there is neither time nor fitness for delicate inquiries on their part. Admitting that this objection is valid, it may be urged in reply, that it need not be insuperable. It cannot be denied that when we see the meaning of the apparent trifles which in practice would otherwise oppress and worry us, our burden is thereby much lightened, and that nothing could encourage us more than to feel that even one daily observation recorded was adding to our general store of knowledge, and making the path of practice more easy. There is no tonic to the mind greater than the sense of work done; and our journey is likely to be made shorter, as it certainly will be made easier, if the way is illuminated. We, indeed, owe it to those members of our profession, who are admittedly overwhelmed by the apparently senseless details of their work, to promote a movement like collective investigation, the object of which is to bring order into chaos, and to help them to stamp a scientific value upon facts hitherto only burdensome. If we compare the unflagging interest of any pursuit where the aim is high and clear with the tediousness and wearisomeness felt when working in the dark, we shall readily admit that we are actually lightening the burdens of practice by thus adding to them, and by giving some portion of them a sense and meaning. It is the spirit of a man which enables him to do his work lightly and cheerfully, and he will certainly be helped in this by a combination with fellow-workers on the same subject."—*British Medical Journal.*

Vicarious Menstruation.—Having noticed of late much discussion in the journals on the subject of vicarious action, a case which was in my care a few months ago has been recalled to mind, and I beg to offer you what there is of interest in it:

In the summer of 1881, I was asked to prescribe for a young unmarried lady then about 23 years of age, who had been a subject of uterine derangement from puberty. Her history furnished a record of all the symptoms belonging or traceable to occlusion of the uterine cervical canal and total suppression of the menstrual discharge, in detail too numerous to note. At the age of fourteen she menstruated first, but owing to exposure to cold about the time of the second period, the discharge failed to make its appearance. Then begun a history of disease which lasted until the age above mentioned, at which time she came into my care. She was emaciated to a skeleton, hysterical, and disgusted with a life of pain and misery. On an emphatic refusal to make a prescription without an examination, she consented. The uterus was, with the exception of some little enlargement about the neck, of normal size. There was some anteflection, though of little consequence. There was no trace of a cervical canal, however, which was occluded from one end to the other. The ovaries were considerably enlarged and excruciatingly sensitive. Glandular enlargements were noticeable everywhere. There were some pulmonary deposits with cough, vertigo, constipation, neuralgia, etc. It seemed that the materia medica had been exhausted by her former medical attendants in their vain efforts to re-establish the monthly discharge. The patient seemed a hopeless wreck, truly pitiable to behold.

An operation for dilating the cervical canal was advised and submitted to at once, and after a most trying and tedious ordeal was accomplished, by the use of the knife at first, and the subsequent insertions of sponge tents, one after another, forcibly twisted into the incision or *artificial os*, until the entrance to the uterine cavity was effected. From the beginning of her trouble the girl was regular in a monthly disturbance, and painful aggravations of symptoms, and almost invariably suffered some unnatural flux. For five consecutive periods she had a considerable discharge from the umbilicus resembling the menstrual flow in consistency, color, and odor. At other times, and always corresponding to the monthly period, she had an enteric discharge which was more than once treated for dysentery, though when not interfered with would invariably disappear within a week. Hæmoptysis and epitaxis frequently accompanied these periods. These sanious discharges continued throughout the history of the case, nine years, coming on always with the menstrual molimen at each physiological epoch. The monthly discharge being pathologically obstructed in its normal course, nature, not disease, invented a substitute

which, in character, was similar to the original, though not altogether sufficient for its purposes.

After the dilatation of the canal the flow came on scantily at first but increased with each subsequent period until a normal quantity was discharged. My patient's general health improved rapidly, the emaciated, cadaverous invalid developing in a few months into a form of grace and attraction, and the splotched and muddy complexion, to a hue of the roses.—*A. S. Holmes, M. D., in Miss. Val. Med. Mo.*

Tubercle Bacillus and Phthisis.—Dr. T. Henry Green, (Physician to Charing Cross Hospital, and Senior Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton), in concluding a lecture on the relation of this micro-organism to phthisis, observes, with regard to treatment: "What is the practical teaching of Koch's discovery with reference to the prevention and cure of phthisis? If our pathological conclusions be even only partially true, they clearly indicate, I think, the necessity of carefully distinguishing between bacillus and the conditions which favor its influence, and of directing our treatment to both. We must endeavor to prevent the access of the organism, and, if possible, to destroy it after it has effected an entrance; and we must also strive to maintain a health condition of the pulmonary tissues, and thus prevent the occurrence of that tendency to apical stagnation which appears to be such an important, if not essential, factor in the disease. The latter of these indications is, I believe, as important as the former; and it is, perhaps, rather in danger of being lost sight of in the very natural eargerness with which attention is now being directed towards the bacillus.

"Firstly, then, with regard to the condition of the lung which favors the influence of the bacillus. Here it is only necessary to remark that, whatever promotes a vigorous state of health will, by improving the condition of the blood, the nutrition of the vessels, and activity of the circulation, and the exercise of the respiratory function, tend to prevent that stagnation and transudation in the highest portions of the lungs, the etiological importance of which we have so specially insisted upon. The value of treatment which has for its object the fufilment of these indications in the prevention of phthisis is, I believe, difficult to over-estimate; and its usefulness is almost equally valuable when the disease is established. I cannot but think that, in the meantime, such treatment promises better results than any attempts to attack the specific organisms. Secondly: the tubercle bacillus. The consideration of this naturally divides itself under two heads: (*a*) the prevention of its access, and (*b*) attempts to destroy it

when the disease is developed. (*a*) The prevention of the access of the bacillus. The present position of our knowledge appears to point to the desirability of adopting measures for the disinfection and destruction of the sputa of patients suffering from phthisis; and perhaps, also, of the alvine secretions, when there is any evidence of tuberculous disease of the bowel. It also raises the question as to how far it is desirable to allow individuals who are not consumptive, but who inherit a phthisical tendency, and especially when such individuals are out of health, to intimately associate with those who are suffering from the disease. If our pathology continues to move on the same lines, this subject may become one requiring the consideration of those who manage our hospitals. (*b*) The destruction of the bacillus after the disease is established. Attempts to do this are made principally by means of antiseptic inhalations. This is the fashionable, though perhaps somewhat misdirected, thereapeutics of the day. A respirator charged with some antiseptic, such as creasote or carbolic acid, is now being largely used in the treatment of phthisis. Although I should be very sorry to unfairly criticize such treatment, I cannot but think that the evidence that its usefulness is in any way dependent upon its destruction of the bacilli, or of any infective substance which they may originate, is wanting. It seems to me much more probable that such inhalations, when beneficial, are so mainly through the favorable influence which they exercise upon the mucous membrane and secretion; and when, as is so often the case, they are combined with chloroform, they will also act as direct sedatives. What we want are cases of early and progressive phthisis in which antiseptic treatment alone, with adjuncts, is followed by marked improvement. When it can be shown, *e. g.*, that the pyrexia of early phthisis is reduced by such treatment, we shall have evidence pointing to the influence of the germicides upon the bacillus of considerable value. We are now making some observations in this direction, but, at present, with negative results. Whilst, therefore, I do not wish to be understood to discourage the treatment of phthisis by antiseptic inhalations, I think we must be careful as to the interpretation we put on their results. The treatment of phthisis and of other pulmonary diseases by means of medicated atmosphere has been greatly stimulated by Koch's discovery. Such treatment has undoubtedly been too much neglected in the past, and its prosecution promises the best results. But, in the meantime, I think we have no evidence that we are able by such means to influence the tubercle bacillus; although, if Koch's investigations be true, the discovery of some agent which, by destroying it, will arrest its injurious influence, is obviously the greatest desideratum."—*British Medical Journal.*

THE USE OF THE MULLEIN PLANT IN THE TREATMENT OF PULMONARY CONSUMPTION.—F. J. B. Quinlan, M. D., M. R. I. A., F. K. Q. C. P., Physician to St. Vincent's Hospital, Dublin, observes that, "from time immemorial the Verbascum Thapsus, or Great Mullein, has been a trusted popular remedy, in Ireland, for the treatment of phthisis." After relating seven cases where it proved of benefit, he concludes, "I have set down the above cases simply in the order in which they occurred, and with no view of supporting any preconceived idea. These cases, although too few to justify any general conclusion, appear to establish some useful facts. The mullein plant boiled in milk is liked by the patients; in watery infusion it is disagreeable, and the success is still more so. The hot milk decoction causes a comfortable (what our Gallic neighbors call *pectorale*) sensation, and when once patients take it they experience a physiological want, and when the supply was once or twice interrupted, complained much in consequence. That it eases phthisical cough, there can be no doubt; in fact, some of the patients scarcely took their cough mixtures at all—an unmixed boon to phthisical sufferers with delicate stomachs. Its power of checking phthisical looseness of the bowels was very marked, and experiment proved that this was not merely due to the well known astringent properties of boiled milk. It also gave great relief to the dyspnœa. For phthisical night-sweats it is utterly useless; but these can be completely checked by the hypodermic use of, from the one-eightieth to one-fiftieth of a grain of the atropia sulphate; the smaller dose, if it will answer, being preferable, as the larger causes dryness of the pharynx, and interferes with ocular accommodation. In advanced cases, it does not prevent loss of weight, nor am I aware of anything that will, except koumiss. Dr. Carrick, in his interesting work on the koumiss treatment of Southern Russia (page 213) says: 'I have seen a consumptive invalid gain largely in weight, while the disease was making rapid progress in her lungs, and the evening temperature rarely fell below 101° Fahr. Until then, I considered that an increase of weight in phthisis pulmonalis was a proof of the arrest of the malady.' If koumiss possessed this power, mullein clearly does not; but unfortunately, as real koumiss can be made from the milk of the mare only, and as it does not bear travelling, the consumptive invalid must go at least to Samara or Southern Russia. In pretubercular and early cases of pulmonary consumption, mullein appears to have a distinct weight-increasing power; and I have observed this in several private cases also. Having no weighings of these latter, however, makes this statement merely an expression of opinion. In early cases, the mullein milk appears to act very much in the same manner as cod-liver oil; and when we consider that it is at once cheap and palatable, it is certainly worth a trial. I will continue the research by careful weighings of early cases; and will further

endeavor to ascertain whether the addition of mullein to the cultivating solution prevents the propagation of the phthisical bacillus."—*British Medical Journal.*

Coffee as an Antidote to Alcoholism.—By F. P. Novaes, Rio de Janeiro. The habitual use of coffee (*Caffea Arabica*) has been considered by some writers to be antidotal to alcoholism, and some of them apparently have no doubts on the subject.

One of the gravest questions discussed in the Congress of Geneva was that of alchoholism, and the means of fighting this terrible scourge, which from day to day makes such frightful progress in Europe, particularly in Switzerland.

His excellency the Baron of Theresopolis, vice-director of the faculty of medicine of Rio de Janeiro, in some remarks made during the discussion of this topic, interested his audience and indicated the means he believed most efficacious to oppose the inroads of alcoholism. He produced statistics showing that the number of drunkards in a country is in inverse ratio to the amount of coffee consumed.

"In Brazil," he said, "where great quantities of coffee are used, and where all the inhabitants take it many times a day, alcoholism is completely unknown. It appears that the immigrants arriving in our country with this terrible passion for alcohol, contract little by little the habits of our people, imitating a fondness for drinking coffee, and their aversion for liquors. The children of these immigrants, brought up with coffee from their tender age, never contract the fatal habits of their parents.

"We can, therefore, conclude that the more coffee we take the less desire for alcohol we have. But to obtain such a result it is necessary that the coffee should be of superior quality, such as that from Brazil.

"Send us your emigrants," said the baron; "we have work for them, and they will live under the protection of our government. In turn we will send you our coffee, which is the best remedy for such a trouble as this which you consider incurable."

His excellency may have exaggerated in this estimation of the effects of coffee, but we do not doubt that its use is an excellent antidote to alcoholism. The number of *cafés* in the large cities of Brazil, where hundreds of persons, from the highests down to the lowest classes of people, go in to take a cup of that delicious beverage, which none but Brazilians know how to make properly, is enormous, whilst drinking-saloons or bars are very few, and their patrons fewer still, in consequence of which a public drunkard is a rare person to be seen—*Philadelphia Medical Times.*

PASTEUR AND KOCH.—Dr. Koch has published his reply to Pasteur, as he announced that he would do at the session of the Geneva Congress. Koch takes the ground that "it is not yet proved that all infectious diseases are parasitic in character, but that the parasitic character must be proved in each case separately." As a model of how such proving should be done, he modestly cites his own experiments with the tubercle bacillus. He criticises the methods adopted by Pasteur in studying rabies and glanders, and denies that that experimenter's conclusions regarding them have been established. Koch also claims priority in regard to the discovery of the cause of anthrax, and denies Pasteur's statements regarding the mode of propagation of that disease (*i. e.*, by the agency of earth worms.) Regarding preventive inoculations, Koch states that while some bacterial diseases may be so prevented, there are others, like gonorrhœa and erysipelas (?) against which one cannot be protected. Koch considers that Pasteur's claims for the value of preventive inoculations are exaggerated, and that his methods are cumbersome and defective. It remains now for Pasteur to say a word.—*Med. Record.*

THE NEWLY DISCOVERED PROPHYLACTIC VACCINE FOR "ROUGET;" OR PNEUMEO-ENTERITIS OF THE PIG.—M. Pasteur has just communicated to the French Academy, through M. Bouley, the results of his recent experiments upon the pig, made with a view to study the prophylaxis of the disease, which we have named in the caption to these lines, and which so deeply affects the interests of the porcine species. The practical value of this discovery is only comparable to the great benefits of charbon preventive; and, like the experimental deductions, which gave birth to the prophylactic inoculations in the latter disease, is the offspring of the renowned culture and alternation process of the illustrious discoverer.

Rouget, or pneumeo-enteritis of the pig, is a contagious and extremely active malady, which has proven a real plague in all those countries in which pork-raising is one of the established agricultural pursuits. In the United States, the mortality from this disease amounted to 900,000 swine; in France, 20,000 of these valuable animals were killed by this pest, the loss sustained by the pork raisers, in the Western departments, Alme, amounting to three millions of francs.

M. Pasteur, and his colleagues have carefully studied the microbe which causes this disease, and have discovered that it is not the bacillus described some years ago by Dr. Klein.

They cultivated this fungus, and submitted it to the attenuation process, through which they have obtained a real vaccine, that when inoculated invests a permanent and preservative immunity upon the experimented animals. The experi-

ments already made are numerous, and condusive enough to dispel any doubts as to the efficacy of this prophylactic vaccination. At present, preparations are being made to carry out a final and decisive test. on a large scale, next year, when the hog-pest will begin to make its ravages in the intected localities.—*Journal de Medicine et de Chirurgie Praitiques.*

Hæmophilia.—Dr. Dunn in the *American Journal of the Medical Sciences* for January, 1883, contributes an article on hæmophilia of great interest throughout, and on page 75, furnishes the following information in regard to this singular affection. He says: "The female members of bleeder families are *par excellence* conductors of the disposition. The daughters in bleeder families are comparatively exempt from the tendency, while the sons are liable to it. They may themselves be healthy and marry healthy husbands, yet the bleeder habit is likely to be conducted to their sons. The daughter of a bleeder family, herself a bleeder, is no more likely to transmit the tendency than her non-bleeder sister. A son of a bleeder family, himself a bleeder, should he live to beget children, does not often conduct the disease to his children but to his grandsons through his daughters. Again, should he have non-bleeder brothers, their grandsons seldom bleed. The number of generations through which hæmophilia can be transmitted is unknown, but there is evidence for the belief, that when it once appears in a family it never completely disappears. Hay describes a family in which it was well-marked for a period of ninety-five years."

In the *Philadelphia Medical Times* of January 27th, Dr. Roberts contributes a short but extremely common-sense article on "the uselessness of styptics in general surgery." He enumerates three objections in particular against their use:

1. "Their reputation as hæmostatic agents leads practitioners to resort to them when more trustworthy methods are needed. Thus valuable time is lost, for, after temporary arrest, the hemorrhage recurs in the already anæmic patient, and is perhaps followed by disastrous results."

2. "If they fail to control the bleeding,—which they generally do if the hemorrhage is important,—it is often so difficult to rid the surface of the pasty clots that subsequent ligation of the vessels is well-nigh impracticable."

3. "Many styptics prevent union by first intention, because they irritate the raw surface, lead to inflammation, or induce suppuration."

These objections are tenable as a rule, but like most others they are not universal. Monsel's salt, for instance, which Dr.

Roberts considers the most objectionable of all, we have seen render good service; albeit we confess to having seen it do harm many times, in the manner indicated by Dr. Roberts. Given a case of epistaxis, a Bellocq's sound, a sponge, and some Monsel's solution, and harm is very likely to result. On the other hand, given some of the same solution, a good hand atomizer, and the result will probably be very satisfactory.

Like Dr. Roberts we believe where torsion and ligation are impracticable that pressure is more effectual than styptics, and in our experience is followed by better results.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.—From the present outlook it seems as if the American Medical Association is to have a journal at last. At least a report to this effect is to be made at the next meeting by the Board of Trustees, appointed to decide as to its possibility, and the method of conducting it. As is already known, the journal is to supply the place of the annual volume of transactions, and will be issued weekly. It will contain thirty-two double column pages of reading matter, embracing the following departments:

I. "Original Papers, Addresses, Reports, and so forth. This will include all the papers read before the Association, and its sections, which are referred for publication.

II. "Leading Editorials on the Scientific, Educational, Social, Sanitary, Ethical and other interests of the profession.

III. "Editorial Summary of progress in the several departments of medicine, and the collateral sciences, including reviews of new books.

IV. "Notices of the proceedings of Medical and Scientific Societies throughout the country.

V. "Correspondence, Domestic and Foreign.

VI. "American Medical Association Intelligence.

VII. "Miscellaneous Medical News."

AN ARMY MEDICAL BOARD has been ordered to assemble at the Army Building, corner of Houston and Green streets, New York city, New York, March 1, 1883, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the Medical Corps of the Army, and will probably continue in session about three months.

All candidates for appointment in the Medical Corps must apply to the Secretary of War for an invitation to appear for examination. The application must be in the handwriting of the applicant, must state date and place of his birth, and place

and State of which he is a permanent resident, and must be accompanied by certificates based on personal acquaintance from at least two persons of repute as to citizenship, character and moral habits: testimonials as to professional standings from professors of the medical college at which they graduated, should also accompany the application if they can be obtained. The candidate must be between 21 and 28 years of age (without any exceptions), and a graduate of a regular medical college, evidence of which, his diploma, must be submitted to the Board.

Further information regarding these examinations and the nature thereof, can be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

Treatment of Dysentery.—Mr. F. Rawle, M. R. C. S., observes that, at the present time, when dysentery is very prevalent, especially amongst those who have returned from the Egyptian war, any suggestion that may mitigate the suffering of so fatal a malady will be hailed with gratitude. The plan he has used with most success is the following: First, having placed the patient between warm blankets, a pint and a half of warm water, at a temperature of 90° Fahr. is injected. This is seldom retained longer than a few minutes, but is pronounced very grateful to the patient. When the water has soothed the mucous membrane of the colon and rectum, and brought away any *effete* matter, two ounces, by measure, of the following enema is administered with a gum-elastic bottle: ℞ Quinine sulphate, ten grains; compound tincture of camphor, four drachms; decoctum amyli to two ounces. Mix, and when about milk-warm, inject, which is generally retained; but, if ejected, it may be repeated after an hour or two. This has been found of great service, and very grateful to the patient, the effect is like magic. If griping pains be felt over the region of the epigastrium, half-drachm doses of chlorodyne, in some aromatic water, mint, carraway, or aniseed should be given. The diet, of course, should be of the most soothing kind: jellies, isinglass, linseed, toast and barley water *ad libitum*. Ipecacuhana appears of little service, and Mr. Rawle has discarded it from his treatment. Warm turpentine stupes on warm flannels, over the hypogastrium prove very beneficial.—*British Medical Journal.*

The Hammond Prize.—The American Neurological Association offers a prize of $500, to be known as the "Wm. A. Hammond Prize," and to be awarded at the meeting in June, 1884, to the author of the best essay on the *Functions of the Thalamus in Man.*

The prize is open to competitors of all nationalities. Essays are to be sent to Dr. E. C. Seguin, 41 W. 20th Street, New York, on or before February 1st, 1884.—*Medical News.*

HAY FEVER.—Dr. J. O. Roe, of Rochester, N. Y., at the Annual Meeting of the New York State Medical Society, held at Albany, Feb. 6th, 7th and 8th, 1883, read a paper on the "Pathology and Radical Cure of Hay Fever," in which the theory is advanced that the disease is due to the fact that certain persons possess a peculiar susceptibility of the tissue along the turbinated bones. That is to say, in these persons this tissue—being very vascular and erectile at all times—is unusually liable to the influence of irritants. Dr. Roe advises its removal and reports five cases in his own practice, and three in that of another physician, all cured thereby.

HYDATIDIFORM DISEASE OF THE CHORION.— Mr. Edward Stephens, M. R. C. S., of Ilminster, writes: "On September 7th, I was sent for by a midwfe to attend Mrs. C., who was flooding. On my arrival the hæmorrhage had stopped. On making an examination, the uterine sheath was not sufficiently dilated to be able to ascertain its contents. On passing my hand over the abdomen, I remarked to the midwife, how unusually circular it was. On the following afternoon, I was again hastily summoned, and I found the woman had lost much blood. On making an examination, I found that, by a little manœuvring, I could insert my hand into the uterus; and I vividly remember how astonished the midwife and Mrs. C. looked, when I informed them that it contained no child. In fact, Mrs. C. stoutly declared that she had felt the child many times; and that, being the mother of thirteen children, all living, she ought not to have been mistaken. After administering a full dose or ergot, some sharp uterine pains followed —soon expelling a mass, which, when collected, filled three ordinary-sized chamber-utensils. After this jelly-like mass had been expelled, she rapidly recovered, and made an uninterrupted recovery,—*British Medical Journal.*

GAILLARD'S JOURNAL, known as the AMERICAN MEDICAL BI-WEEKLY, in accordance with the spirit of the times, has given place to the *American Medical Weekly.*

We take for granted that its editor will continue to keep it where it has been hithertho,—in the front rank of medical journalism.

WRITER'S CRAMP.—Mr. Wolff, a school teacher of Frankfurt-on-the-Main, exhibited two cases of writer's cramp, and two cases of extensive cramp of the extensors, before the Berlin Medical Society, in which, after three week's treatment by

massage and gymnastics, the patients not only wrote without cramp, but with perfect freedom. A fifth patient, who had been treated in this way four years before, has never had a return of the cramp; also a lady who had piano-player's cramp for a long time, was cured in a few weeks by the same treatment.—*Deutsche Med. Zeitung.*

The Mortality Referable to Alcohol.—At the end of a long and carefully prepared report recently drawn up by a Committee of the Harveian Society, it is concluded: that there is, upon the whole, reason to think that, in the metropolis, the mortality among any considerable group of intemperate persons will differ from that generally prevailing among adults in the following important particulars, viz., a fourfold increase in the deaths from diseases of the liver and chylopoietic viscera; a twofold increase in the deaths from disease of the kidney, a decrease of half as much again in those from heart-disease, a marked increase in those from pneumonia and pleurisy, a considerable increase and an earlier occurrence of those from disease of the central nervous system; a marked decrease in those from bronchitis, asthma, emphysema and congestion of the lungs, a decrease nearly as great in those from phthisis, and a latter occurrence, or at least termination, of the disease; a very large decrease in those from old age, with an increase in those referred to atrophy, debility, etc., and the addition of a considerable group referred in general terms to alcoholism or chronic alcoholism, or resulting from accidents.—*British Medical Journal.*

Indian Enteric Fever.—Dr. R. H. Quill, Surgeon to the Army Medical Department, gives the result of an examination of the annual returns of the sick and wounded troops at Assirgarh, Central India, from 1875 to 1881. The station is completely isolated and the conservancy carried out by the "dry earth system," the contents of the latrines are emptied into a ravine two hundred yards from the station, twice daily. The drinking water is carefully filtered. Every precaution is taken to avoid exposure to fæcal impurity. During the period just mentioned, not one single case of enteric fever occurred among the troops. The believers in the climatic origin of cases of enteric fever in India very correctly point out, that the principal victims of this fever are young soldiers, with little Indian service; and that the older men, with an Indian service of four or more years, are rarely sufferers from it. Without gainsaying this observation, or attempting to account for it, Dr. Quill would simply say that, for a space of five years, Assir-

garh has been occupied by successive batches of young and unseasoned soldiers without the occurrence among them of any type of fever, other than the mildest form of ague. The climate of Assirgarh is no better than that of many other station in the Bombay Presidency, where enteric fever is of only too frequent occurrence; but its isolated situation, and the nature of its surroundings, lessen to a very great extent, its liability to fæcal contamination of any sort; and herein lies the reason for the immunity it enjoys from the presence of enteric fever.—*British Medical Journal.*

Urinary Abscess in certain strictures of the urethra may be a fortunate occurrence, provided the urethra itself is not opened and extravasation of urine so caused. But if it discharges externally in the perineum, forming a channel for the escape of the water, instead of being a cause of apprehension, it may be regarded as a happy escape from a serious condition. Reginald Harrison, speaking of the danger of extravasation, says (*London Lancet*): When, however, it is anticipated, or dealt with before much damage has been done, the risk is comparatively slight, provided the patient's health has not been seriously deteriorated by long-standing suffering. He says further, that it may occur without the presence of stricture; that gonorrhœa, the use of bogies or strong injections, may produce it. Its premonitory symptoms are tenderness in the perineum, swelling, and irritation of the bladder. If there be no stricture, there need not be much anxiety, as the inflammation will generally yield to appropriate treatment. If the swelling should increase to such an extent as to press upon the urethra and cause retention, an incision will be necessary to releive that condition, but in making it care should be taken to avoid injuring the urethra. If a stricture be present, however, and an abscess forms which opens the urethra and causes extravasation, incisions should be made wherever the infiltration exists. It is a generally accepted doctrine that in these cases the damage is in front of the triangular ligament, and yet it cannot always be determined whether there is not also some trouble behind it. In all of these cases he not only incises the perineum, abscess and urethra, but also introduces a tube similar to a lithotomoy tube, which is retained in the bladder and a means thus provided for the free escape of the urine. The tube is allowed to remain in for about a week, or until all sloughs have passed and the wound in the perineum has cleaned. In some cases he has found that the stricture, which was formally tight and unyielding, has been so changed that it could be dilated with bougies. He says that the incision in the perineum should be in the median line; that although the abscess may be lateral, still the incision must correspond with the raphé, otherwise hemorr-

hage and permanent fistulæ may result. From his observations he concludes, that in all cases of perineal abscess, with organic stricture and extravasation of urine, perineal urethrotomy behind the stricture should be performed, and a tube inserted into the bladder to keep it drained; that the stricture should not be treated until relief from the abscess, retention and extravasation is obtained.—*Weekly Medical Review.*

Nocturnal Eneuresis Treated by Voltaic Alternatives.—Dr. Althaus writes: "In June, 1882, I was consulted in the case of a boy, aged 15, who had suffered from incontinence of urine during sleep, ever since he was nine years of age. He had been treated with belladonna and other medicines without relief; and as he was about to enter a public school, where a continuance of this trouble might have been particularly annoying, the parents were very anxious that something more should be done. The boy's general health was good, but he was considered a nervous child, and highly sensitive. There were no ascarides, but he had a very long prepuce which could only with difficulty be retracted. There was, however, no suspicion of masturbation. Treatment by electricity having been recommended, I applied the middle-sized circular cathode over the region of the bladder, and the large oblong anode (five inches by two) to the lumbar portion of the spine. The current strength 2.50 milli-ampères for five minutes at a time. As after a few such applications no material benefit appeared to have been gained, I then added fifty voltaic alternatives produced in the metallic circuit. The night after this was free from the usual annoyance, and the boy has made an apparently uninterrupted recovery." Dr. Althaus prefers this method of treatment to injections of nitrate of silver, as recommended by Sir Henry Thompson. He believes that belladonna is of value when eneuresis is distinctly caused by undue excitability of the bladder.—*British Medical Journal.*

Compound Fracture of the Femur, Erysipelas, Pyæmia: Amputation of the Thigh: Subsequent Exarticulation at the Hip: Complete Recovery.—Arthur E. Barker F. R. C. S. Eng., Assistant Professor of Clinical Surgery, and Assistant-Surgeon at the University Hospital, describes a case, under this title, at great length; the patient was a rivetter, aged 29, who fell from a roof and fractured his femur. The case illustrates, in the first place, what is, however, unfortunately rare in experience, namely, the possibility of recovery from pyæmia, even in a patient weakened by a most severe injury, prolonged suppuration, and an attack of erysipelas. Secondly, it illustrates the feasibility in some

cases of amputating with the best results through the thigh for compound fracture, leaving a second compound fracture in the neigborhood of the hip-joint to be treated otherwise later on, when the first amputation wound is healed. Thirdly, it shows that, in such a case, it is possible to exarticulate the whole of the remaining bone up to the hip-joint, without re-amputation through the soft parts, but through a moderate opening in the outer side of the stump.—*British Medical Journal.*

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, OCTOBER 1st TO DECEMBER 31st, 1882.

Bailhache, P. H., Surgeon. Present detail continued until further orders, Oct. 6, 1882.

To proceed to Louisville, Ky., as inspector, Oct. 13, 1882.

Granted leave of abscence for thirty days, Nov. 10, 1882.

Vansant, John, Surgeon. Granted leave of absence for twenty days, Nov. 18, 1882.

Hutton, W. H. H., Surgeon. To proceed to Louisville, Ky., and assume charge of the Service, Oct. 7 and 14, 1882.

Miller, T. W., Surgeon. To continue at present station until further orders, Oct. 6, 1882.

Wyman, Walter, Surgeon. To inspect keepers and crews of the Life Saving Service, Oct. 5, 1882.

Long, W. H., Surgeon. To proceed to Detroit, Mich., and assume charge of the Service, Oct. 7 and 14, 1882.

Murray, R. D., Surgeon. Having returned from Service in the yellow fever epidemic in Texas, to report in person to the Surgeon-General, M. H. S., Dec. 4. 1882.

Granted leave of absence until Feb. 28, 1883, Dec. 19, 1882.

Fessenden, C. S. D., Surgeon. To proceed to St. Louis, Mo., and assume charge of the Service, Oct. 7, 1882.

Purviance, George, Surgeon. To inspect keepers and crews of the Life Saving Service, Oct. 21, 1882.

Sawtelle, H. W., Surgeon. To proceed to New York, N. Y., and assume charge of the Service, Oct. 7, 1882.

Austin, H. W., Surgeon. To inspect keepers and crews of the Life Saving Service, Oct. 5, 1882.

Fisher, J. C., Passed Ass't Surgeon. Present detail continued until further orders, Oct. 6, 1882.

To proceed to Alexandria, Va., as inspector, Oct. 21, 1882.

Heath, W. H., Passed Ass't Surgeon. Granted leave of absence for fourteen days, Dec. 28, 1882.

Porter, F. D., Passed Ass't Surgeon. To inspect keepers and crews of the Life Saving Service, Oct. 5, 1882.

To proceed to Evansville, Ind., for temporary duty, Nov. 21, 1882.

To proceed to Charleton, S. C., and assume charge of the Service, Dec. 21, 1882.

O'Connor, F. J., Assistant Surgeon. To proceed to Norfolk, Va., for temporary duty, Oct. 14, 1882.

To rejoin his station (Detroit), Nov. 4, 1882.

Wheeler, W. A., Assistant Surgeon. Relieved of duty at Charleton, S. C., and placed on waiting orders, Dec. 22, 1882.

Armstrong, S. T., Assistant Surgeon. To examine keepers and crews of the Life Saving Service, Oct. 5, 1882.

Bennett, P. H., Assistant Surgeon. To examine keepers and crews of the Life Saving Service, Oct. 5, 1882.

Ames, R. P. M., Assistant Surgeon. Granted leave of absence for twenty-one days, Nov. 23, 1882.

Devan, S. C., Assistant Surgeon. To examine keepers and crews of the Life Saving Service, Oct. 13, 1882.

To inspect unserviceable property at the San Francisco Marine-Hospital, Oct. 20, 1882.

Kalloch, P. C., Assistant Surgeon. To inspect keepers and crews of the Life Saving Service, Oct. 5, 1882.

THE LOUISIANA STATE MEDICAL SOCIETY—Will hold its next regular meeting at Shreveport, La., on Wednesday, April 4th, 1883. In view of the fact that there was no meeting during the past year, it is hoped that the medical profession generally throughout the State will keep the day of meeting in mind, and endeavor to make the attendance as large as possible.

We have been requested by circular received from C. Lange, Secretary-General, to announce the fact, that the eighth session of the International Medical Congress will be held at Copenhagen, Denmark, August 10th–16th, 1884.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, while endeavoring to reflect the true status of medicine and surgery at large, and working to convey to its readers the newest discoveries and the latest advances in both branches, desires at the same time to become recognized as the especial exponent of medical science in the South and Southwest. Communications from these quarters in regard to quarantine, contagious diseases, hygiene, sanitation, state medicine, peculiar forms of disease—everything germain to medicine, are earnestly asked for. Physicians need not refrain because they feel incompetent to write elaborate essays. All men are not expected to acquire literary culture. Send whatever is deemed of sufficient worth to be known to others, and we will look out for the literary guise. The facts are the main things.

Unless under special conditions, such communications as are not used will not be returned. Matters relating to the Editorial Department should be addressed to DR. JOHN GODFREY, P. O. Drawer 282, New Orleans, La.

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Meteorological Summary—January.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.317	52.4	69.3	N. E.	.....	Mean Barometer, 30.150.
2	30.335	51.9	62.3	East.	.....	Highest Barometer, 30.689.
3	30.192	55.6	83.0	East.	.01	Lowest Barometer, 29.886.
4	30.117	66.3	91.0	S. W.	.17	Monthly Range of Barometer, 00.803.
5	30.104	68.9	90.7	South	.....	Mean Temperature, ——.
6	29.980	67.9	86.3	South	.68	Highest Temperature, 77.0.
7	29.999	59.2	81.7	North	.....	Lowest Temperature, 33.50.
8	29.973	56.0	78.0	N. W.	.04	Monthly range, ——
9	30.080	41.1	47.7	N. W.	.51	Greatest daily range of Temperature, 23.3.
10	30.088	52.6	46.0	N. W.	.....	
11	30.305	50.4	38.3	N.N.W	.....	Least daily range of Temperature, 7.5.
12	30.241	54.1	65.3	S. E.	.....	
13	30.025	61.6	77.0	S E.	1.46	Mean of Maximum Temperature, 64.1.
14	30.221	44.5	58 0	N. E.	.04	Mean of Minimum Temperature 49.0.
15	30.143	48.7	75.0	East.	.46	Mean daily range of Temperature, 15.1.
16	30.064	58.8	88.7	S. E	.07	Prevailing Direction of Wind, E.
17	29.990	66.5	90.7	South	1.04	Total movement of wind, 6437 miles.
18	29.950	68.8	86.0	South	.11	Highest Velocity of Wind and Direction 27 S. W.
19	30.001	68.4	93.3	East.	3.71	
20	29.958	69.0	82.3	S. W.	.11	Number of Foggy Days, 3.
21	30.317	40.7	61.3	N. W.	.12	Number of Clear Days, 10.
22	30.583	40.8	33.3	N. E.	.....	Number of fair days, 9.
23	30.593	46.1	39.7	East.	.....	No. of cloudy days on which no rain fell, 2
24	30.382	53.5	68.0	East.	.....	Total No. of days on which rain fell, 15
25	30.215	59.1	84.7	S. E.	.....	
26	30.149	61.1	78.0	East.	.....	
27	30.061	62.3	91.0	S. E.	.....	
28	30 026	63.6	84.0	N. W.	2.10	
29	30.136	55.8	60.0	North	....	
30	30.009	59.8	63.7	S. W.	.....	
31	30.107	56.5	50.0	East.	.....	
Sums.	.....	....	....	.....	Tot.	
Means	30.150	56.8	71.1	E.	10.63	

COMPARATIVE TEMPERATURE.

1873	49.5	1878	51.0
1874	56.0	1879	53.1
1875	54.2	1880	63 2
1876	60.3	1881	50.4
1877	53.7	1882	62.4

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873	5.06	1878	5.36
1874	1.68	1879	2.34
1875	8.44	1880	1.02
1876	4.43	1881	11.15
1877	5.39	1882	4.54

L. DUNNE, *Sgt., Sig. Corps, U. S. A.*

Mortality in New Orleans from January 20th. 1883, to February 10th, 1883, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
January 20	0	4	13	25	16	158
January 27	0	3	14	13	10	116
February 3	0	2	17	33	11	171
February 10	0	6	20	31	11	150
Total	9	15	64	102	48	595

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

APRIL, 1883.

ORIGINAL PAPERS.

Yellow Fever Prevalence in Havana.

BY STANFORD E. CHAILLÉ, M. D.,

Prof. Physiology and Path. Anatomy, Medical Department University, La., and Ex-Chairman of the U S. Yellow Fever Commission (1879) to Havana.

The United States have more frequent and rapid intercourse with Havana than with any other place habitually infected with yellow fever, and Havana is the port, of all others, most severely and continuously infected. Hence, the risks of importing yellow fever infection from this port are exceptionally numerous. However, these risks vary in different years and, in large degree, with the varying prevalence of the disease at its Cuban stronghold. It is therefore, of interest and importance to the sanitary officers at our ports, and especially to those at our quarantine stations, that they should be enabled to estimate the *comparative* extent to which yellow fever may, at any given time, be prevailing at Havana. The statistical data, requisite for such estimates, are the more desirable, since it is probable that, in future as during the past few years, the press will continue, during our season of danger, to publish telegraphic reports every week of the number of deaths in Havana by yellow fever.

The following three tables of yellow fever deaths, by years, by months and by weeks, supply the requisite data to a useful

extent and as fully as trustworthy official reports in my possession permit. The last table, which is likely to be most frequently referred to, includes the last three years only, the sole period for which I have been enabled, through the courtesy of my esteemed friend Dr. D. M. Burgess of Havana, to procure reports of the deaths by weeks. Since the yellow fever deaths during said three years were less than the annual average during the previous ten years, Table III presents data below the average for said previous years.

TABLE I.

Annual Deaths by Yellow Fever in Havana, for the 13 *years* 1870–1882.

YEARS.	DEATHS.	YEARS.	DEATHS.	YEARS.	DEATHS.
1870	665	1875	1001	1880	892*
1871	991	1876	1619	1881	518*
1872	515	1877	1374	1882	781
1873	1244	1878	1559		
1874	1425	1879	1444	Total, - - - -	14,031
				An average, -	1080

*Dr. Del Valle reported, in his published Annual Reports, 892 deaths in 1880 and 518 in 1881 as above given, instead of 912 in 1880 and 539 in 1881, as reported by Dr. Burgess in the following Table III.

During the ten years, 1870–1879, the deaths by yellow fever ranged during each of the twelve months as follows:

TABLE II.

Monthly Deaths by Yellow Fever for the ten years, 1870–1879.

MONTHS.	Average	RANGE.		MONTHS.	Average	RANGE.	
		Min.	Max.			Min.	Max.
January ...	17	6	32	July	328	68	675
February ..	14	4	24	August	242	71	417
March. ..	15	4	32	September.	120	35	234
April.....	24	4	37	October ...	78	28	185
May.....	57	13	127	November .	60	5	150
June	188	66	378	December..	40	9	82
Annual range for the 10 years, 1870-1879..					1184	515	1619

TABLE III.

Yellow Fever Deaths in Havana, in 1880–1–2, *by Weeks.*

FOR THE WEEK ENDING	1880 *	1881.	1882.	FOR THE WEEK ENDING	1880.*	1881.	1882.
January 7.....	3	4	2	July 15.....	72	16	45
" 14.....	1	1	1	" 22.....	65	21	61
" 21.....	3	2	0	" 29.....	59	31	45
" 28.....	8	0	1	August 5.....	46	36	29
February 4.....	1	0	2	" 12.....	43	27	22
" 11.....	3	2	4	" 19.....	39	40	12
" 18.....	1	1	4	" 26.....	26	26	20
" 25.....	4	2	1	September 2.	29	19	14
March 4.....	2	0	3	" 9.	18	31	9
" 11.....	3	1	4	" 16.	21	25	15
" 18.....	8	0	3	" 23.	18	18	19
" 25.....	6	0	2	" 30.	16	17	12
April 1.....	5	3	6	October 7.....	15	13	9
" 8.....	4	0	3	" 14.....	13	11	11
" 15.....	11	1	6	" 21.....	13	2	4
" 22.....	15	3	6	" 28.....	16	12	11
" 29.....	15	2	5	November 4..	8	8	15
May 6.....	41	0	5	" 11..	8	14	12
" 13.....	10	2	20	" 18..	3	8	6
" 20.....	9	3	17	" 25..	7	9	9
" 27.....	7	1	30	December 2 .	6	9	8
June 3.....	12	1	24	" 9..	2	7	5
" 10.....	22	7	35	" 16..	7	11	5
" 17.....	34	3	40	" 23..	3	6	8
" 24.....	33	15	44	" 30..	4	7	4
July 1.....	57	15	59	1 day, Dec. 31.	1	3	0
" 8.....	66	23	41				
Totals for the year.....					912	539	781

* As February had 29 days in 1880, the weeks in that year ended, after February 25th, one day earlier than given in the table, i. e., on March 3d instead of March 4th, etc., and there was an additional extra day, i. e., December 30th as well as December 31st.

The following facts will serve further to enlighten those seeking to interpret correctly the weekly or other reports of the mortality statistics of Havana. The last census of Havana, taken in 1877, gave it a civil population of 195,437, and, as the deaths of civilians, during the 10 years, 1870–9, averaged 7,727 per annum, the annual average death rate for *the civil population alone* was about 39 per 1000. But, the published reports of the total deaths include the deaths in the military population of Havana and in the military hospitals, which receive soldiers who have become sick while on duty elsewhere than as well as in Havana. Therefore, in calculating the death rate from the reported total deaths, a variable and unreported number of military population should be added to the civil popula-

tion; and, since this is not done, the death rate, as usually calculated on the basis of the civil population alone, is false by over-estimate. For instance, during the ten years, 1870–9, the annual average of the total reported deaths (civil and military, but not so specified), was 9,223, and the apparent death rate was about 47 per 1000, but the correct corresponding figures for the civil population alone were, as above stated, only 7,727 and about 39 per 1000.

The military population, during 1870–9, was unusually large in consequence of the civil war, which caused the importation of large numbers of unacclimated Spanish soldiers. These suffered so severely with yellow fever, that they contributed, in the different years of 1870–9, from about one-eighth to five-eighths of all the deaths by yellow fever in Havana. The decrease in the annual mortality by this disease, since 1879, has been, as I believe, in large part, if not wholly, due to the smaller number of unacclimated immigrants, both of soldiers and civilians. Suppression of the civil war has greatly diminished the number of the former, and the emancipation of the slaves, with the resulting injury, immediate if not permanent, to Cuban agriculture, and the consequent "hard times" have diminished the number of immigrant civilians.

Observations on the Etiology, Pathology and Treatment of Rheumatism.

By J. McF. Gaston, M. D., Campinas, S. Paulo, Brazil.

The term rheumatism is loosely applied to a long series of developments in the tissues, which are not properly understood by medical practitioners.

Opposing theories have been presented, alleging on the one part, that the disorder originates in a predominance of acidity, and claiming on the other, a preponderance of alkalinity in the blood, or in the secretions. In like manner, antagonistic views are entertained in regard to the treatment; and while we seek some elucidation of contradictory experiences, we become involved in greater intricacies, which render the confusion worse confounded.

Those who have been accustomed to consider rheumatism under the aspect of a peculiar diathesis, manifesting itself with distinct conditions in certain parts of the body, may perhaps content themselves without entering upon the far more important investigation of the influences which operate in causing the fundamental derangement in the elements that constitute the disease. But the day has passed when professional men accepted a mere name without a well-defined signification of a disease. The origin of the word, from the Greek term, expressing a flow or discharge, gives no proper conception of the nature of this malady, and should have been long since discarded from scientific nosological nomenclature.

If medical men could forget that Ballonius gave this name to the disease two hundred and forty years ago, and go about the consideration of its inherent qualities free from any preconceived ideas or associations, it would place them upon a vantage ground towards attaining a comprehension of the real character of this affection. In practical parlance, the application of the term rheumatism is doubtless sufficiently clear, and every old woman has a proper understanding of what is intended when this word is employed in treating of the characteristic features of the disease. Yet this is widely different from a truly scientific adaptation of the term to express the distinctive nature of the disorders of the animal economy. I am aware, that it is very different, if not quite impracticable, to change the name by which a disease has been recognized for such a length of time, yet my criticism upon the failure of the term rheumatism to indicate the concomitants of this derangement, is more or less appropriate. If it is warrantable to make here a suggestion, as to a word that might fitly take the place of rheumatism, I would propose the term *fibrinitis*, as expressing the characteristic developments of the disease in different parts. It behooves us, therefore, to consider this affection of the tissues, without any reference to the name by which it is known, and to seek a corret knowledge of the properties and qualities of the elements, which make the injurious impression upon the physical organism.

"The real pathology of acute rheumatism," says Bennett,

"has yet to be determined, and as a preliminary step a careful histological examination of the affected tissues is absolutely necessary."

And Aitken remarks, that "although rheumatism is undoubtedly stamped with a peculiar and specific character, yet the material morbific matter is as yet undiscovered. The exact conditions of the system under which the disease becomes developed are hitherto undetermined."

As I do not intend to elaborate the distinctive features of the different varieties of rheumatic manifestations, a general outline of its phases as presented under clinical observation, may suffice to guide my farther reference to its several features of development in this practical sketch.

For the purpose of ready comprehension a general division is made into the acute and chronic; which are subdivided so as to include under the former sub-acute, and under the latter nervous cases of rheumatism.

This difference in grade, is recognized by Wood, under the four following heads: 1. *The acute*, in which violent local inflammation is attended with considerable constitutional disturbance or fever; 2. *The sub-acute*, in which the inflammation is less violent and there is little or no fever; 3. *The chronic*, characterized by long duration, and the lowest grade of inflammatory action; and 4. *The nervous*, in which there is neither inflammation nor fever, the disease consisting exclusively in irritation, and that directed especially to the nervous tissue.

The last partakes more of the nature of neuralgia than of rheumatism so-called, yet the fibrous tissue being implicated in this irritation, in a way that is comprehended under this designation, it will not lead to any misapprehension of the special modification that exists.

The shading of one form into another is so frequent, as scarcely to be separated for therapeutic applications, yet there are cases under each head that are salient and well defined in their several characteristics.

The most invariable accompaniment of this disease is an increase of fibrine in the blood, and whatever decompositions

may ensue in connection with this change, it may be considered as a constant factor in the development of rheumatism. The lithic acid excretions, and the cretaceous depositions being *sequences* of other modifications, do not afford any reliable or sufficient basis upon which to establish an hypothesis of the prevailing element in the progress of the disorder.

But the extraordinary proportion of fibrine in the blood, that indicates the march of the fever, exacts special attention from the observer of the elementary modifications that are impressed upon the organization by this disease.

It may be claimed that all inflammation is attended with augmentation of fibrine in the blood, and hence that this circumstance affords no clue to the causative operation in this special phase of inflammatory fever. But there is a transformation of the albuminous and gelatinous principles into fibrine in the rheumatic excitement, which does not occur in ordinary inflammatory affections, and we are warranted in concluding that this peculiarity is a prime element of the train of disturbances. It is observed generally that the fibrous and fibro-serous tissues are most subject to the irritation and the consequent inflammation of the rheumatic diathesis; and likewise that these textures become the seat of inductions and enlargements as a result of the progress of the disease.

The elimination of lactic acid in the perspiration, and the deposition of sediments of deep-colored urates from the urine, are operations of nature for the protection of the internal organs; and are the legitimate consequences of the re-actionary functions of the skin and the kidneys against the injurious influence of the rheumatic perversion of the elementary substances.

A distinction must be drawn between cause and effect, as to the elements that enter into the history of the origin, progress and result of this disease.

If it appears uniformly, that the albuminous and the gelatinous products of the organism give way to an increase of fibrine from the very outset of the disorder, we must seek in this modification an explanation of the operation of the morbific cause.

It is generally held that some untoward impression from without, induces changes within the body, which lead to the functional derangements primarily, and that the organic disturbances ensue as consequences of this perverted action.

A want of the proper equilibrium in the distribution of nervous energy to different portions of the arganization is the first link in the chain of abnormity. Then local capillary engagements ensue as secondary phenomena, while visceral congestions lead to excitation and irritation of the internal organs. This influence of the vitiated action extends ultimately to remote parts supplied with fibrous and serous tissues, not as a constituent, but as a result of the disease.

There is such an intimate relation between the capillary vessels and minute nerve fibrils of the skin, and the internal viscera by the action of the excito-dynamic function of the nervous system, that any irregular local impression upon a particular portion of the cutaneous investment of the body is soon brought to bear upon some corresponding internal organ, and induces a proportional derangement subsequently of the general system.

Under such conditions "the proteinous alimentary principles" become involved in the perturbation; and hence the development of fever is accompanied by the transformation of the albuminous and gelatinous elements into fibrine, to a greater of less extent, in every case of genuine rheumatism.

There are sufficient grounds for the belief that functional deragement of the liver, and consequent vitiated secretion of bile, has a very important share in the fundamental disorder which results in this disease. The known sympathies of this organ with impressions made from without through the skin renders it very sensitive to partial applications of cold and moisture to the surface, as also to general exposure of the body to unusual or to transient impressions of a variable temperature with humidity. After all these depressing influences of a temporary character upon the liver, there is a re-action that may not exceed the point of re-establishing the wanted correlation of functions with the adjacent organs, or it may attain to a state of excitement which constitutes disease. I am con-

vinced from the clinical history of fibrinitis, that the bilious derangement is the causative element in the transformations which occur; and while it is not perhaps evident, that this is the origin of the trouble in all cases of so-called rheumatism, it is most probable that the hepatic disturbance is an operative source of the alteration in the proteine compounds of digestive process upon which it depends.

If I were to act upon the practical injunction, to keep within the bounds of old established principles, I should not submit this hypothesis for the consideration of our pathologists. Yet I may be excused for suggesting that the extension of a fibrinous development in the blood, and its excess in the aponeurotic and other fibrous tissues even extending to the pericardium, is the characteristic and the distinctive feature in all the phases and in every stage of this disease.

It is shown by actual experiment, that in acute rheumatism the amount of fibrine in the blood is more than double that of the ordinary standard. It is therefore to be inferred, that this element in the normal condition, only supplies the waste in fibrous tissues, and maintains them in their proper healthy state. But in the inflammatory rheumatic diathesis, it becomes superabundant, and thus *surcharges* the *fibrous textures*, so as to *cause swelling* and *pain*. Even in the nervous sequel, which may be considered as a resultant of depositions of fibrine in the tissues, we have effects of this supra fibrination, which under the ordinary activity of the circulation are not taken up and eliminated.

Looking behind these developments, we discover the origin of the increase in the fibrine, in the operation of the disordered liver upon the digestive and assimilative functions.

The channel by which the hepatic influence is propagated, and the modification it impresses upon the nutrition of its various dependencies, have become known by the recent progress in physiology, but it would take me away from the true scope of this paper to enter upon these details.

"The principle," says Paget, "that each organ, while it nourishes itself, serves the purpose of an excretion, has an application of peculiar interest in the history of development."

"The importance of this principle will the more appear, if we connect with it another equally characteristic of the minuteness of the relation between the blood and the tissues, namely, that the existence of certain materials in the blood may determine the formation of structures in which they may be incorporated."

"This seems to be established as a general law in pathology, by cases in which diseased structures evidently incorporate materials that had their origin or previous existence in the blood."

"And this," he further states, "surely must be the explanation of many of the most inveterate diseases; that they persist because of the assimilative formation of the blood. The tissues once affected may (and often do) in these cases recover; they may have gained their right or perfect composition; but the blood, by assimilation, still retains its taint, though it may have in it not one of the particles on which the taint first passed; and hence, after many years of seeming health, the disease may break out again from the blood, and affect a part which was never before dismissed. And this appears to be the natural course of these diseases, unless the morbid material be (as we may suppose), decomposed by some specific; or be excreted in the gradual tendency of the blood (like the tissues) to regain a normal state; or finally be, if I may so speak, starved by the abstraction from the food of all such things as it can possibly be made from."

That rheumatism is a specific inflammatory affection of the fibrous and fibro-serous textures, does not necessarily imply that it has a specific cause, or that it requires a specific treatment.

The sources of insult to the organization are so multifarious and so varied, that the remote cause may be different for each individual case, and the proximate cause may depend upon the special internal organ that receives the immediate perturbing influence; yet few, if any cases, become developed without the preliminary hepatic disturbances.

The participations of derangement in the biliary function as a causation element is, according to my observation, essential to effect the changes which constitute this disease.

After an extended experience, in treating all the stages and modifications of rheumatism, I am impressed with the importance of an early resort to measures for the correction of the liver, and though this class of remedies may not seem to be directly indicated by the symptoms, it will be found that they conduce very materially to a good result.

It may be pardonable in one who has been a sufferer from this distressing malady, and who has ceased to feel its pangs under the salutary influence of medication, to speak with confidence in regard to the nature of the disease, and the means that are most appropriate for relief in its different aspects.

This offering would not have been undertaken, but for the conviction that my individual experience would serve as an additional contribution to the knowledge of rheumatism.

While I have reaped some advantages from the labors and published observation of my colleagues, I must confess that their brilliant reports of the curative powers of the salicylate of soda have not been confirmed by my use of it in acute inflammatory rheumatism, and I doubt whether this remedy uncombined with other articles can be relied upon to secure an invariable prompt, and good result. It is preferable to the recommendation of "six weeks," but with all the array of authority in its favor, and a hearty desire to corroborate all the favorable impressions of its virtues, I have not found it so efficacious as represented.

In aggravated cases with fever, swelling, and pain, I have resorted to the well known formula of the nitrous powders with satisfactory effect, and should it not act as a purgative, follow up on the next day with infusion of serpentaria and sulphate of magnesia, until free evacuations ensue. On the third day the use of Dover's powder in doses of 5 grs. every three hours, washed down with a wineglass of snake-root tea usually completes the cure.

In some cases of a less intense grade, the infusion of serpentaria, made with 1 oz. of the root to the quart of boiling water, with one oz. of epsom salts and one drachm of nitrate of potash, taken in doses of a wineglass every hour has sufficed for their entire relief. It is to be repeated and continued so as to

keep up a slight cathartic effect, and though an old simple remedy, it is worthy of confidence.

In cases of subacute rheumatism accompanied with much pain, the best treatment at the outset is calomel 12 grs., Dov. powd. 18 grs. divided into 6 powders, of which one is to be taken every two or three hours. On the following day, the use of black snake-root tea with epsom salts may be kept up in doses sufficient to induce a moderate action upon the bowels.

Afterwards the acetate of ammonia with infusion of jaborandi may be used to combat any remaining fever or irritation,

As to local applications in rheumatism little is to be expected towards a cure, yet they conduce to the comfort of the patient and serve as a palliative to the inflammation. When there is much local swelling, benefit will be obtained from swathing the parts with cloths wrung out of hot vinegar, with acetate of lead and black drop added to each application.

In sub-acute cases it has been my custom to wrap up all the affected parts with flannel steeped in camphorated spirits of turpentine, which allays the local pain and swelling,

In the treatment of chronic rheumatism by many modern physicians, new inventions have taken the place of old fashioned remedies, and I have undertaken to try all and hold fast to the good. But in this, as in the management of acute and sub-acute cases, the time honored agents have served me best.

Strange as it may seem the results have been most satisfactory, after extensive experience, with a combination of equal parts of calomel, jalap, aloes and extract of rhubarb, made into pills of 4 grains each, of which 3 are taken every 3 hours, until thorough purgation is secured. I have found that rebellious cases, under other modes of treatment, yield to a few doses of these pills.

The rheumatic paroxysms in my own person yielded on several occasions with a single dose of three pills, and after the occurrence several times at considerable intervals upon any sort of exposure. I eventually repeated this dose daily for three days in succession, and the troublesome visitors took final leave of me.

Having been subject to occasional accesses of this disease, both in the United States and in this country, it could not have resulted that climate had any material influence either in causing or curing the proclivity to it.

Eight years have now elapsed since the above remedy was used, and I have not had a single twitch of rheumatic pain, though leading a life of much exposure to all the vicissitudes of variable seasons.

The great efficacy of this combination has been well tested in numerous instances of chronic rheumatism among different classes of people, and it has very rarely failed to afford an exemption from all returns of the disease.

I don't undertake any explanation of the *modus operandi* of the remedy, as each may have his own hypothesis, based upon his view of the etiology of this affection; but I vouch for the salutory result of the treatment, and commend with confidence the use of this compound to those who have to contend with obstinate cases. Even when there are no decided indications of bilious derangement, the use of these pills afford prompt relief.

In the rare cases which have resisted their influence, or when from any cause they are contra-indicated, I have had recourse to other measures, that have proven so slow in their effects as to leave room to infer that spontaneous cause had come about.

The iodide of potash with tincture of colchicum, and the tincture of guaiac, have only shown results after continued use. The alterative course for syphilitic rheumatism, combined with syrups of sarsaparilla is often beneficial, and I have employed the iodide of potash jointly with the compound syrup of Cuisinier extensively, and with signal advantage in cases that were of a syphilitic origin.

One amongst the first patients treated by me after locating in Campinas seven years ago, was a man that was bedridden with chronic syphilitic lumbago, accompanied with periostitis and partial exostosis of the sacro-iliac articulations.

He took 6 grains of calomel and 12 grains of jalap, combined, every morning for a week; and subsequently the com-

pound syrup of sarsaparilla of Cuisinier, with 2½ drachms of iodide to the pound, in doses of a soup spoon four times a day for a month. At the end of this period, he was so much improved as to be out on the street, and the medicine being continued in gradually diminished doses, at the expiration of three months he was completely restored, and has not since suffered from the disease.

As syphilitic complications are far more frequent in this country than in the United States, many opportunities have occurred for testing this medication, and it has generally been attended with salutary effects.

In the nervous variety of rheumatism, which consists chiefly of irritation in the fibrous and fibro-serous tissues, without reaching the active inflammatory state, we encounter the greatest obstacle to a rational application of remedies.

This condition is for the most part the *resultant* of previous paroxysms of rheumatism in one or another form, and like the tophaceous concretions must be considered as detached from the original causative influence.

After having experimented with everything that was encountered in the history of remedies for this troublesome and obstinate sequel of the rheumatic inflammation without obtaining results of a satisfactory nature, a newspaper report of the internal use of volatile alkali was brought to my attention. I resorted to the application of this agent at the outset, with very little expectation of good results, as little reliance is to be placed upon such notices as a rule.

A protracted case of nervous rheumatism, which had not yielded to the best directed medication available to me, seemed to warrant a recourse to any measure that gave a remote promise of relief, and this article was accepted as a *dernier resort.*

To my surprise and great satisfaction, my patient, whose disease had baffled all my resources, applied *secundum artem*, improved from the first day it was taken. The officinal aqua ammoniæ was given in doses of 10 drops with half a wineglass of cold water, every two hours, for the first few days, and afterwards at longer intervals. The suffering was gradually relieved, day by day, until at the end of a week she was free

from pain, and within three weeks this rebellious disease had entirely disappeared. The regular observation of the case was discontinued then, yet the patient was directed to keep up the alkali in doses of 10 drops three times a day.

She returned to her service as a cook at the end of a month, and for an entire year felt no farther symptoms of the disease subsequently she experienced at different times some discomfort, and so often as the pain returned, it was promptly arrested by the use of the ammonical solution made by adding a teaspoonful of the volatile alkali to a bottle of water, taken in wine-glass potions every two or three hours during the day.

For two years complete this patient has been quite free from all indications of the disease; and the direct influence of the medicine with the final result of the treatment, warrants the conviction that she was cured by the volatile alkali employed without any sort of modification or admixture with other substances.

In view of the salutary influence of the alkali upon this case, I have been prompted to employ it in other similar affections and with uniform good results. It is true that no other case had been previously subjected to such a varied medication, or been so protracted as the first above noted, yet they have presented conditions which proved the virtues of the aqua ammoniæ in *nervous* rheumatism, and I am propared to endorse the efficacy of this treatment for this most troublesome disease and recommend it with confidence.

The rationale of such a course of treatment does not depend in any way upon the primary and incipient developments of the rheumatic fever connected with hepatic derangement. Nor does the presence of lactic or lithic acid in its prrogress, give any indication after the disease may be said to have run its course and left only its effects upon the nerve elements of the fibrous tissues. My use of the volatile alkali was originally empirical, and I continue to employ it as an efficient remedy without any clue to its mode or channel of action.

The intimate association of the minute distribution of the nerve fibrils and the capillaries with the primordial elements of the tissues, favors the views that even fibrinous depositions

may be eliminated through the agency of a medicine operating through the nervous system, and I am inclined to attribute the efficacy of the volatile alkali to its great influence as a nerve stimulant. Its characteristic effects as a diffusible and yet permanant stimulant of the nerves, reaches every portion of the physical organism, and operating upon the excito-dynamic functions of the nervous system it may induce a corrective influence upon the blood or accomplish a change in the elementary substance of the fibrous tissue, so as to eliminate the rheumatic poison from the system.

It is not probable that any chemical agency of the alkali extends to the remote fibrous structures, which are involved in nervous rheumatism, as it undergoes so many modifications before reaching these textures.

It is true, that according to the experiments of Richardson, "healthy blood owes its fluidity to the presence of ammonia, which is given off during its coagulation, which process may be arrested and the fibrine re-dissolved by the restoration of the alkali." And Dr. Ozier Ward, assuming the truth of Dr. Richardson's views, examined and compared the therapeutic effects of the various preparations of ammonia, and he found that whether applied externally or taken internally, they possess in common the property of dissolving the proteine elements of the blood, whether in the vessels or effused into the tissues. Thus its stimulant and solvent action is said to be similar in kind, if not in degree, when used either externally or inwardly in the form of gas, liquor, ammoniæ or combined with carbonic acid, etc.

From the utility of these preparations, continues the writer, in the treatment of venemous bites and stings, inflammatory swellings, diphtheritis, croup, etc., we may suppose that they will be equally efficacious in effacing of the fibrinous element of the blood.

"In these and other inflammatory diseases and conditions, it is probable that the ammonia is carried out of the system in form of urates or lithates of ammonia contemporaneously with the increase of fibrine in the blood, and that the benefit of the salts of ammonia in such cases is owing to their purity in re-

moving the effusion of fibrine from the imflamed parts. In this way, although the primary action of ammonia is stimulant, its remote effects are sedative or debilitant, as it not only arrests inflammatory action, but, by its resolvent and sediment powers, carries the products of inflammation out of the system; and hence its utility in all active febrile complaints."

This well elaborated theory of the action of ammonia is more applicable to the progress than the sequel of rheumatism for which we seek an explanation, and I fall back in preference to the hypothesis of its virtues as a nerve stimulant.

In the early formative stage of inflammatory rheumatism, those medicinal agents which defibrinate the blood are most decidedly indicated; and our measure of treatment will be beneficial in proportion as they accomplish either directly or indirectly a diminution of the proclivity to fibrine in the vital processes.

Should a specific ever be discovered for *fibrinitis*, I would not expect it to be applicable to all the stages of this disease, any more than mercury is appropriate to all the grades of syphilis, and hence a judicious adoption of measures to the various phases of rheumatism and its consequences, is required for a proper therapeutic proceeding in different classes of cases.

On Albuminuria and Nephritis.

By Dr. John Dell'Orto.

In a very interesting paper read at the meeting of the 12th of January, 1883, of the Academy of Medicine of Turin, Doctors Mya and Vandoni relate the results of the experiments they made on rabbits, with the object to establish whether the increase of urea in the blood had any influence in the causation of albuminuria and nephritis.

Urea of the purest quality, dissolved in water, was hypodermically injected in some rabbits; and during several days. The dose used in each injection, was from one to six grams of urea in 12 grams of water—these doses were well tolerated by the animals. Only one injection a day was administered, and always at the same hour, that is every twenty-four hours.

In every case, the presence of albumen in urine, though not copious, was detected by the most reliable tests.

In one rabbit, which was injected during eleven days, the following results were obtained :

1st. In the first nine days the urine, examined a few hours after the injection, contained albumen; but the specimen taken at the end of the twenty-four hours and a few minutes before the next injection, did not contain any trace of albumen. *First step, temporary albuminuria.*

2d. On the tenth day the albumen became constant in the urine. *Second step, permanent albuminuria.*

3d. On the eleventh day hæmaturia appeared; besides albumen, granulous crystals were observed in the same urine. *Third step, commencement of nephritis.*

At the same time a tumor was noticed on the back of the body of the animal; the tumor was opened and found to contain a serous fluid. *Fourth step, œdema.*

4th. On the same day a second injection was practised. The dose of urea used in this injection was only 3 grams, that is one-half of the maximum doses administered previously. Six hours after this injection the animal died with the most violent convulsions.

Autopsy: Serous effusions were found in the ventricles of the brain, in the subcutaneous tissue, and in the mediastinum; the left cavities of the heart greatly enlarged; kidneys increased in volume and the cortical substance rather swelled, in some places stained with a yellow color.

The microscopical examination of the kidneys revealed the following pathological changes: tumefaction of the epithelial elements; in some tubules the epithelium is destroyed, and the interior of the tubule itself is occupied by a very fine granulous mass; in other tubules a mass of red globules was observed, while in other pieces the epithelium looks healthy.

No modification whatever in the intercellular substance.

It seems to me, that these experiments confirm the theory of Prof. Semmola, on Bright's disease. (See MEDICAL JOURNAL of New Orleans, February, 1880.) In fact the Italian Professor believes (as far as I can understand his theory), that the

primitive cause of Bright's disease is a failure in the function of the skin, and consequent accumulation in the blood of its excrementitious principles, immediately followed by a general derangement of nutrition. Under such circumstances an excess of work is thrown on the organs, that preside over the latter function, more especially on the liver, the blood-forming and blood-purifying gland *par excellence.* Now one of the functions of the liver, as Murchison says, is "to contribute in a great degree" to the destruction of albuminous matter derived "from the food and textures, and the formation of urea, and "lithic acid, which are subsequently eliminated by the kidneys." This function of disintegration is precisely the one that must be primarily altered, according to Prof. Semmola, in Bright's disease, as he assures us to have constantly found, since the very beginning, a considerable decrease of urea in the urine of his patients. Now a decrease in the elimination of urea from the kidneys means an increase of this poisonous material in the blood. Hence the explication of all the symptoms of Bright's disease, of which the renal pathological alterations constitute the last stage.

The gradual way by which albuminuria, nephritis, œdema, convulsions and death were produced by the remarkable experiments of doctors Mya and Vandoni, seems to prove that these views may be correct.

Report of a Case of Tubercular Meningitis—Treatment and Recovery.

BY R. SAUVAGE, M. D.

Read before the New Orleans Medical and Surgical Association.

"It is exceedingly doubtful whether tubercular meningitis is ever "recovered from, at all events when the disease is fully developed. If a "case should terminate favorably, the cerebral functions are permanently "impaired more or less.—*Roberts' Theory and Practice of Medicine.*

Mr. President and Gentlemen:

It is in the face of an assertion from such an exalted source and which meets, I believe, with the approval of a vast major-

ity of the members of the medical profession, that I report to you a case treated by me two years ago which as far as my humble judgment could inform me, was, I am satisfied, one of tubercular meningitis, and which recovered, nevertheless, under treatment fully, without any impairment whatsoever of the cerebral functions. I will at the same time endeavor to demonstrate whether this malady cannot be successfully diagnosed, without a post mortem examination to confirm it, and to destroy if possible the rooted opinion that all reported cures are cases where the attending physician erred in his diagnosis.

On the 30th of January, 1881, at the urgent solicitations of the father, who represented that the attending physician had pronounced his son as being past all hopes of recovery, advising him to call whomever he chose, I consented to go with him to see the case. On entering the patient's room, I was struck by the peculiar shrieks which the boy threw out at short intervals, at the same time raising his emaciated arms and hands he would seize his forehead, screaming, my head! O, my head! This state of cephalalgia, accompanied with tremors of the whole body, I was informed by the parents, lasted generally from one to three hours, occurring once, sometimes twice, and occasionally oftener in the 24 hours. These headaches had supervened lately, fever having been the chief trouble previously. The abdomen presented an arched, retracted appearance, and during the short intervals between the cephalalgic paroxysms, his hands would grasp at the bedding, and his features would be disturbed by continual twitchings. Although, I must admit, being impressed with a somewhat similar opinion to that of the *confrere* who had just retired from the case, with a view of relieving the distressed family, without attempting to seek further information, satisfied that it was a case of meningitis, no matter of what form, my object being to produce immediately local relief, I prescribed a pretty large blister, to be applied to the nape of the neck, promising to call next day. On my second visit, I continued my observation of the symptoms. To my questions or those of his parents, he would answer with the greatest unwillingness and irritability, wishing always to be left alone, calling occasionally for

the cold applications which I had ordered to be made to the head, and for drinking water; his favorite position in bed was lying on the left side, drawn up in a cramped position. The fever which the day before was 104° F., with pulse 140, had now fallen to 101°.F., pulse yet very frequent, and the patient had rested more quietly, having enjoyed a tolerably sound sleep after the application of the blister. Previously he had not slept for several nights.

From the parents I learned that the boy was 14 years old, although not appearing so, having always been very puny and delicate, but very intelligent and of a very active mind. His chest was narrow, his eyes dark and protected by long dark lashes, his hair black and curly, his teeth white and regular. The father, a Mexican, seemed to enjoy tolerably good health, no history of either tubercle or scrofula could be obtained. As to the mother's history, I could obtain no information, except that she was dead; but the embarrassed and confused answers which my inquiries met, left me satisfied that the present wife of the man, a colored woman, bearing on her person the marks of scrofula, was the mother of the boy; their object in denying it, being to secure admission for their son to the Christian Brothers' school for white boys, where my patient had distinguished himself in his studies. Being very ambitious, he encroached on the time of his recreations and meals to devote himself to study. Since his early childhood he was always very sickly, having been most of the time under the care of the late Dr. Capdevielle for pulmonary troubles, and also for sores that covered, for a long time, his legs and abdomen. The doctor having closely questioned the parents, at that time, in regard to consumption in their family, and having given them to understand that the boy would never reach manhood. A few days before, while apparently enjoying complete health, the boy attracted his parents' attention to the fact, that, to read his books, he had to keep one eye closed, as otherwise he saw double. Shortly after, he complained of lassitude, had light fever accompanied with rigors, all of which was attributed to excessive study and the influence of malaria.

Having obtained quite a satisfactory result from the blister as mentioned heretofore—despite the protestations of some near relatives and friends present, who went so far as to remark, that it would be better to allow the poor creature to die in peace,—with the approbation of the parents, I ordered two blisters of moderate size to be applied to the calves of the legs, which at that time were reduced to mere skin and bone.

The history of the case leading me to diagnose it as one of tubercular meningitis, I decided to administer small doses of iodine combined with quinine, and ordered five pills of the following prescription to be administered three times daily:

Quiniæ Sulph : gr. xx.
Tinct. Iodinii, ℥ xxx.
Amyli, q. s.
℥. ft. pil. no. xxx.

Making about ¼ of a grain of iodine daily. Having observed in my subsequent visits, that the patient's condition seemed to improve somewhat under this treatment, I persisted in it. Whenever the bowels remained over twenty-four hours without a natural operation, I had a soap enema administered. The appetite was morbid, and at times voracious, requiring constant attention and control. Stools voluminous and hard. Vomiting was a prominent symptom in the early part of the disease, as also oscillation of the pupils. During February and March, I applied several fly blisters to the nape of the neck and calves of the legs alternately, whenever I would remark great intensity in the cephalalgic fits. I will here state, that during the treatment, I twice tried the administration of hydrate chloral and bromide of potassium, but with no satisfactory result, the patient himself, after the first few doses, refusing to take the remedy. The month of March found the patient considerably improved. The cephalalgic paroxysms occurred then at longer intervals, and were less severe. The temperature remaining in the neighborhood of 100° to 102° F.

The great emaciation of the body, which at one time threatened the patient with bed sores, had somewhat disappeared, and the disposition of the patient had become more gentle. I still persisted with the iodine and quinine, and in April, 72

days after taking charge of the case, and nearly four months since the visual trouble had been noticed, the parents called for a consultation, as, although at that time my patient could leave the bed, help at dressing himself and take position in a rocker near the door, where he could enjoy the sights of out-door life to his great delight; still as occasionally, once or twice a week, the cephalalgic fits would return, I refused giving a positive prognosis of recovery, although very hopeful. Professor Ernest S. Lewis was called in consultation by the family. By mere coincidence it happened that the patient was taken with one of his cephalalgic fits as we met at his bed-side. The Professor admitted the fact of brain trouble, but did not formulate any opinion as to the cause. He suggested in conjunction with the pills of iodine and quinine, the administration of cod liver oil, and also advised its use by frictions.

One month after, that is, about the latter part of May, the boy had entirely recovered, without the least alteration in the cerebral functions. I saw him several months after, and am informed that until now. he has enjoyed comparative good health; his parents, as advised, having restrained his application to study, being careful to prevent all cause of stimulation of the brain and administering to him cod liver oil.

Here arises the question, was the diagnosis correct? Do we possess any means of diagnosing, to a certainty, a case of tubercular meningitis during life? Has iodine, with the help of the blisters acting as a check on the inflammation of the meninges, quinine aiding as a tonic and antiseptic, succeeded in bringing the absorption of the tubercles and their removal from the affected organ before their doing irremediable damage? With a view of elucidating these questions:

We shall first consider what other diseases could have been mistaken for tubercular meningitis; secondly, we shall examine rapidly into the pathological anatomy of the disease and its etiology as to tubercle; thirdly, we shall attempt to determine, if in some case, as the one reported for instance, certain premonitory symptoms, coupled with the history of the patient, would not justify us in asserting the diagnosis without the as-

sistance of an autopsy; and, lastly, we shall allude to the treatment.

Acute meningitis, due to some cause traumatic or other, may develop symptoms similar to those of tubercular meningitis.

In the present case no history of a fall or blow on the head, the abdomen, or stomach in the region of the hypogastric or solar plexuses, eliminates all suspicion of its being traumatic. The absence of all eruption, ruled out also the exanthematous affections as being the cause of the meningitis. It was not due to excessive pyrexia of a malarial poisoning of the system, the meningitis having been ushered in by symptoms showing the primary affection to have been in the brain, as was indicated by the first appearance of diplopia. Was it cerebro spinal meningitis? Throughout the whole sickness not a single symptom, such as pain and tenderness in the spinal region, was noticed, nor any sense of tightness around the body as generally accompanies trouble of the spine. Moreover, he had in the case no opisthotonos, no trisums, no herpes about the lips and face, which generally are met with in the cerebro-spinal affection.

Let us consider here the anatomical character of the disease.

The pia mater, which consists of a very fine areolar tissue, holding together a minute plexus of blood vessels, owes undoubtedly to its vascularity its being the principal seat of deposit of tubercles, these being seldom found in the dura mater and arachnoid; still these membranes are generally found injected as well as the pia mater. Tubercles are also sometimes found in the membranes of the spinal cord, but this rarely. The pia is usually found dotted with miliary tubercles, these, in different cases, varying in size, and at different stages of fatty degeneration—indicating, undoubtedly, the fact that death occurred in some cases under an intense inflammation, in others, after the existing cause had varied in intensity and duration.

Inflammatory changes are sometimes met with in the pia and the ventricles are found dilated and containing a hydrocephalic effusion; exudation and suppuration are observed at the base, also in some cases on the convexity of the brain. Partial

tuberculosis of the pia is also met with at the base of the brain, in the fissures and along the chief branches of vessels. Huguenin mentions having observed miliary tuberculosis of the pia, varying in extent and accompanied by an old affection of the pia, with circumscribed thickening and laminæ of indurated or caseous connective tissue. Imbedded in these were old miliary tubercles, that had long before undergone caseous degeneration; such cases, consequently, present the lesions of two tubercular affections of the pia of different ages.

I will not enter upon the discussion of the intimate or true nature of tubercle, upon which I hope the late discovery and researches of Koch will throw new light and contribute to set at naught the numerous hypotheses advanced by different authorities. Niemeyer held that primary tubercular inflammation is rare, and when tubercles are formed in organs, they are as a rule secondary to caseous degeneration of some inflammatory product. Huguenin inclines to this opinion, still he reports several autopsies in tubercular meningitis where no cheesy mass nor other infectious source could be found in the brain or other parts of the body. I would rather accept the views of other eminent authorities, who maintain that the formation of tubercles is the first step, and that the morbid product undergoes degenerative changes, at the same time, by its irritation, exciting inflammation. Tubercle is probably liable to be absorbed after having undergone degenerative changes; its want of vitality renders it liable to caseous degeneration, the material being ultimately converted into a purulent fluid simulating an abscess; or a firm cheesy mass is produced, which may become encapsuled. Calcification may follow the caseous degeneration, the substance becoming inert. Tubercle is often eliminated after having undergone the process of softening, thus giving rise to ulcers on mucous membranes, and cavities in organs, as well exemplified in the case of the intestines and lungs. These may ultimately heal up and a permanent cure result, the cicatricial tissue formed being very prone to contract; occasionally, a cavity results from the death and discharge of a quantity of tubercle *en masse* (Roberts). There is sometimes a change described as

cornification or obsolescence, in which the tubercles become opaque, horny, and bluish gray.

Do we possess a symptom in this disease which in certain cases, as in the one just reported, will allow the physician to arrive to a positive conclusion as to the nature of the meningitis? I allude here to the diplopia, which was the first disorder noticed.

We mentioned, in describing certain anatomical characters of the disease, that tubercles are usually found at the base of the brain; we know that implication of the cranial nerves in this region will produce double vision, among other signs. What other cause then could we suspect in this circumstance, but sudden pressure due to the formation of tubercles, principally when the phenomenon appears in a subject whose history indicates a tuberculous diathesis and whose activity of mind must have incited the deposit of the tubercles in the pia mater.

We shall refer the question: is tubercular meningitis ever recovered from, and do we possess therapeutical agents that can help to that end, to the fact that tuberculosis, as already mentioned, is known to cure in the lungs and intestines as revealed by post-mortem examinations? We have given the degenerative process of the tubercles, which condition allowed their elimination from the invaded organ, or in becoming encapsulated, remained thus harmless. If nature does that much for the lungs and other organs, it may do as much for the meninges and the brain, and possess undoubtedly, also, its mode of relief of those organs; and although until now anatomical pathology has not shown us in the pia mater anything resembling a harmless encapsulated deposit, or indeed, traces of absorbed miliary tubercles, as mentioned by Huguenin. I think, nevertheless, that we should not too readily coincide with him, Trousseau and others, in refusing bluntly to admit the curability of this disease.

Certainly here, as in all other forms of tuberculosis, I would admit of the curability, only when the curative process, whether applied by nature or by the physician, her assistant, is applied at the proper time, before irremediable damage should have been suffered by the affected organ.

Autopsies have revealed extraordinary conditions of the cerebrum, which still comported life. Who knows, but more than one of these discharges, through the nose or ear, whose origin could be traced intra-cranial, are not due to nature choosing its channel to eliminate the broken down tubercles which had undergone degenerative process.

As nature in its curative attempt may excite an inflammation too great in an important organ, then comes the time for the attending physician to act with a view of relieving that inflammation by the means at his disposal. Whether or not his physiological knowledge furnishes him a perfect theory of the action of blisters, if he has employed them in practice, he cannot have failed to have observed their beneficial actions as derivatives, and he should apply them without stint. Their failure to relieve, being usually for the most time due to their being applied too sparingly or too late. In the case reported the inflammation excited by the presence of the tubercles probably caused an hydrocephalic effusion, which dilating the ventricles, compressed the convolutions of the cerebrum against the skull, giving rise to those terrible cephalalgic fits accompanied with cries. It was in such a stage of the malady that I first saw the patient and had recourse to the blisters, which, I feel confident, rendered the greatest service in relieving the pressure and the inflammation. Iodine was employed also, for its therapeutical value as a general excitant of the vital actions, especially of the absorbants and glandular system. Since the discovery of the bacillus tuberculosis by Koch, I have propounded to myself the question whether iodine may not have direct destructive action on tubercle? The quinine I employed as a tonic and antiseptic. In none of several books on materia medica I had consulted, at the time, did I find any notice of the value of iodine in tubercular meningitis, but in the materia medica and therapeutics by Dr. Charles D. F. Phillips, published in April, 1882, by Woods, in speaking of the therapeutical action of this drug in tubercular meningitis, the learned professor says:

"I have had several cases of tubercular meningitis that de-
"rived benefit from iodides, alone or in combination. In
"one, a child, aged six years, ill for eight days, insensible,

"with dilated pupils, dyspaghia, paralysis of one side, and "convulsive twitchings, getting worse under previous treat- "ment, improvement began soon after commencing iodide of "potassium, which was given in 5 to 10 gr. doses every four "hours, and 5 min. of tincture of belladonna midway between. "Recovery ultimately ensued, and the boy is now sixteen "years of age."

"In another case of mine, aged eight years, the child had "pain, vomiting, delirium, unconsciousness, convulsion, di- "lated pupils, tetanic stiffness of the neck muscles, grinding "of the teeth, difficult respiration, slow weak pulse, and every "sign of fully developed meningitis, yet recovered under iodide "of potassium and belladonna, with occasional doses of "aconite."

Dr. Leared recorded a case of recovery under 5 gr. doses of iodide of potassium when other remedies had been used without relief. He was satisfied as to the diagnosis of "tubercular meningitis.

M. Rodet has recently recorded a severe case in a girl of eighteen recovering under daily doses of 4 to 5 grammes, and considers failure to insufficient dosage. (*Medical Record*, May, 1879.)

Other desperate, but successful cases are on record. (*Edinburgh Medical Journal*, 1841; *London Medical Gazette*, 1842; *Medical Times*, 1859; *Bulletin de Therapeutique*, Aug., 1861, etc.)

In regard to the remark of Robert's, that if ever this affection is cured, it is always with some derangement of the cerebral functions, I will call attention to the different changes and terminations of tubercles, mentioned precedingly, which explains clearly how such termination of a case may occur, and how the contrary, that is a cure, without any such derangement, may result.

Gentlemen, when impressed with the positive incurability of a disease, we are loth to treat it with proper energy. If I have but partly contributed in shaking off in a few the opinion which so many of the profession entertain of the incurability of tubercular meningitis, and lead them to its active, energetic and persevering treatment, I shall consider myself fully rewarded.

TRANSLATIONS.

I.

HYSTERIA IN MALES.

(Translated for N. O. Med. and Surg. Journal, by L. F. SALOMON, M. D.)

CLINIC OF PROFESSOR CHARCOT.

Cases of hysteria in males are now numerous enough to clear up any doubt as to the existence of this affection, as was the case for a long time. There are absolutely regular hysterical attacks in males, presenting their four periods, exactly as is observed in women. There are always, however, certain differences, of which the principal consists in the ordinary curability of the malady. M. Charcot has thus seen a young boy affected with attacks called epileptic, and in whom even a cerebral tumor was suspected, and who got well at the end of three months. He presented in the iliac fossa a hysterogenetic spot, pressure upon which would put an end to the attacks, which were always characteristic of hysteria. Now, these hysterogenetic points are met with in hysteria of both sexes. They are seated almost always in the thorax, sometimes in the head, and present here the peculiarity that if, by making pressure upon them, the attack can be brought on, the same means will arrest it. The existence of these hysterogenetic points explains the attitude assumed by certain patients, veritable attitudes of defense, to avoid all accidental pressure or all contact with these painful points.

Among the most curious features of hysteria in males may be mentioned the case of a young boy seen at Bicêtre, who was affected with hemianæsthesia, and presented a well marked bregmatic hysterogenetic spot; his attacks were complete, and were followed by melancholic delirium; in this there is a difference from that usually observed in women, who ordinarily manifest a double delirium, in which a gay delirium habitually follows the melancholy. This child had 595 attacks in nine months; a sufficient number of attacks to have caused a patient to succumb were they epileptic, while in hysteria they would leave hardly a trace of their having occurred.

M. Charcot presented at the clinic a hysterical patient, no less interesting than the preceding. It was a boy of thirteen years, just arrived from Russia, and who for the past five months, had every day at the same hour, his habitual attack. He did not have here, it is true, any violent attack, but every day about three o'clock he manifested an exacerbation in a pain seated in the bregmatic region, which indicated that the fit was imminent; he would then extend himself on his bed, cry and sob for a while and the attack would thus end.

This peculiar circumstance—the return of the attack every day at the same hour, is very characteristic of hysteria, and is not seen ordinarily in epilepsy. There was besides, in this boy, a right hemi-anæsthesia; examination of the eye showed that the field of vision was narrowed, more so in the right eye; and on this same side there existed color blindness, manifested by the disappearance of perception of violet, blue and yellow. The hysterogenetic point was well marked in this case also; it was located at the bregma and the patient dreaded the least touch, against which he defended himself quickly. Another hysterogenetic point was found also above the coccyx.

All the facts are then confirmative of hysteria; but on account of the sex alone of the subjects, the prognosis could be considered favorable. These patients are always difficult to treat, because it is necessary to remove them as much as possible, from the untimely solicitude of their parents. Hydrotherapy, employed morning and night and at the moment when an attack is threatened, succeeds generally in these cases, associated with other general means, in producing a cure.—*Journal de Medicine et Chirurgie Pratique.*

II.

Gazette des Hopitaux, February 20th, 1883, pp. 154 et seq.

PECULIAR REFLEX PHENOMENA DUE TO UTERINE FLEXURES AND DEVIATIONS. THEIR SUCCESSFUL TREATMENT BY A PECULIARLY CONSTRUCTED *RING-PESSARY.*

(Translated for N. O. Med. and Surg. Journal, by D. C. Holliday, M. D.)

The readers of the *Gazette des Hôpitaux* are no doubt familiar with M. Dumontpallier's ingenious apparatus—for supporting the uterus—and the excellent results which have followed its use in correcting those deviations from a normal position, in many cases of more or less severity.

They will no doubt remember this pessary, composed of spiral watch-springs with rubber, so light, so flexible, and yet so elastic, possessing those qualities to such a degree, that no matter into what shapes it may be found necessary to compress it, in order to facilitate its introduction, always resuming with ease and rapidity, by its natural resiliency, its original circular form, thus adapting itself with wonderful facility to the parts with which it is brought into contact, without, under any circumstances, ever causing injurious pressure (vide Gazette des Hôpitaux, 1876).

The facts reported in the article mentioned, more specially intended to establish the immediate results of the application of this form of ring-pessary, in correcting these deviations from

the natural positions of these uterus, and the consequent disappearance of the local symptoms produced by them.

The double fact of the influence of these uterine deviations, in producing certain reflex nervous phenomena; and the immediate disappearance of these phenomena following their correction, certainly had not escaped the observation of so astute an observer as M. Dumontpallier—who had already called attention to the above fact in a previous paper, and has made it the subject of two lectures in the amphitheatre of Mr. LaSegne at la Pitie in 1877.

This extremely interesting subject in gynecology, merits further attention, and special study. It is in futherance of this purpose, that a former pupil of M. Dumontpallier, Dr. Eugene Forfer, publishes this article. Those reflex nervous phenomena symptomatic of uterine displacements which M. Eugene Forfer has had an opportunity of observing, in the service of M. Dumontpallier are as follows: ileo-lumbar neuralgia, produced by a procedentia of the womb; two cases of facial neuralgia in two females, one the subject of simple retroversion, the other of complete retroversion of the womb; one case of paresis of lower extremities, with lumbar pains, in a female suffering from prolapsus; one case of *paraplegia* the result of retroversion; a case of paresis of both upper and lower extremities, accompanied by pains in back and loins, dependent upon retroversion; a case of vesical paralysis in a woman who was also the subject of prolapsus in the second degree with retroversion, also a case of paralysis of the rectum. We also find in the paper of M. Forfer a case related to him by M. Dumontpallier of severe vaginismus, accompanied by epileptiform convulsions the result of retroversion: two other examples, one of marked psychical trouble in a young subject, due to uterine displacement; another of severe gastro intestinal accidents in a woman the subject of prolapsus, with retroversion: these cases terminate this clinical report.

It would be impossible to give a synopsis of all the above observations we will therefore select two typical cases, one in the service of M. Dumontpallier, a second from the clinic at the *Hotel Dieu* of Mans, in the service of M. Dumontpallier. A woman, 58 years, presents herself at the consultation in *la Pitié*. Eighteen years ago, after a tedious and painful labor, the uterus became gradually prolonged, and at the end of five or six months the uterine neck had cleared the vulva. From this time, the patient became afflicted with severe pains in the back and in right leg, and notably with decided weakness of inferior extremities, to such an extent as to make standing or walking almost impossible. Several pessaries were tried, which she was unable to bear. M. Dumontpallier carefully introduced one of his flexible rings, with the effect of causing the immediate disappearance of the pains; the paresis of lower extremities continued, however, for several days longer.

The patient continued to wear her pessary without the slightest inconvenience or suffering, for eighteen months, when it was removed without any recurrence of the prolapsus. If the pain in the right leg was caused by pressure on the sacral plexus, the paresis of the lower extremeties could only be the result of reflex action.

The following is the second observation:

A woman, aged 34 years, whose health was excellent up to her first confinement, which occurred just five years before, was admitted, in July, 1882, into the service of Dr. Lejeune at the Hotel Dieu of Mans. Ten days after labor, she felt, for the first time, severe pains in the hypogastric region, where a tumor was readily recognized, probably due to imperfect involution. These pains became gradually more severe, micturition difficult, and evacuation of the bowels painful. Gradually the increase of these nervous phenomena became so troublesome, as to cause her to give up her occupation. She complained of severe pains in left side of head and face, especially on a level with the infra-orbital and mental foraminæ. This part of the face, during paroxysms of pain, became hot, red, and swollen, the vessels of the eye on the affected side became highly injected. The pains dimmished while in bed, but rapidly reappeared when the patient arose and stirred about. Her disposition, before calm and patient, became irritable, capricious and irascible. Finally, to the neuralgic pains, latterly, were added some cramps in the arms and the legs, with sensations of formication in the hands and feet. The pains in back and lower part of abdomen became so severe as to make her so bent, as she expressed it, as to make her walk nearly doubled up.

When admitted into the hospital, M. Forfer, on examining her, discovered the existence of a prolapsus of the womb in the second degree. He adjusted a No. 6 ring-pessary, and in ten days the woman was able to leave the hospital; the local symptoms were relieved and with them the head symptoms and facial neuralgia disappeared. M. Forfer has seen the patient since, and finds the cure permanent.

The above facts, together with those reported at the clinic in 1876, and of those since referred to by M. Dumontpallier, at *la Pitié* in 1877, go still further to prove the efficiency of this modified ring-pessary, when properly applied, in correcting these various deviations in position of the womb and in their permanent cure; and further demonstrates by their immediate disappearance after this correction of these displacements, the true origin of these sympathetic, or reflex and nervous phenomena, to be these vitiated positions of the uterus, and which have so often been looked upon as merely coincident or as symptoms of hysteria or other neuroses of like nature. —*Gazette des Hôpitaux*, Feb. 20th, 1883.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary moment are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

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EDITORIAL.

McDANIEL'S METHOD OF ARTIFICIAL RESPIRATION.

It is said that for upward of a hundred years after the publication of his Principia, the University in which Newton toiled continued to teach in accordance with views thought to be true up to the time of the enunciation of his. If this be so,—we could hope for the honor of humanity that it is not.—what a significant commentary is it upon the conservatism, the prejudice, the apathy, in a word, upon all the traits that go to bind men down to grooves previously cut and fashioned for them.

Many instances of like kind might be mentioned, if one were not enough to serve our purpose.

In this issue of this Journal, there is a brief review of Esmarch's lectures on aids in injuries and accidents, in which attention is called to the fact that, in resuscitating persons apparently drowned, reference is only made to the methods of Hall and Sylvester, while that of McDaniel is, it would seem, either unknown or ignored.

McDaniel's method of artificial respiration is really best suited to the cases of still-born (not dead) infants, but we think with the author, that it is at the same time the best means of reviving respiration without regard to cause. This being the case, it is high time that men like Esmarch should know that there is such a thing as "McDaniel's Method." If it is not the case, it is then high time that the "Method" should be

known of men, and given its proper place as a scientific procedure.

We do not see, however, why the method is not already known, for Dr. McDaniel invited the attention of the medical public to it so long ago as 1869, in a paper read before the American Medical Association, and published in the transactions of that body for that year. He also read an elaborate paper on the same subject before the Alabama State Medical Association at its annual meeting in 1879, which can be found in the transactions for that year. From this it is evident that Dr. McDaniel has not hidden his light under a bushel; notwithstanding, it is apparent from an editorial in the *Philadelphia Medical News* of Aug. 12, 1882, that its learned editor knows nothing of McDaniel's claims.

In regard to the validity of these claims, it is proper to say in this connection, that they were submitted by appointment to a committee, selected from among the ablest medical men in Alabama, and, after mature test and deliberation, substantiated and acknowledged.

Dr. McDaniel does not propose to set aside all other methods of artificial respiration, "but," as he says, "merely to introduce into general practice a new one of very great efficacy, very safe, of very convenient and speedy application, very easily comprehended, and specially adapted to small patients."

Without further comment, we will now quote from Dr. McDaniel's last paper, only premising that enough favorable reports have been made in the cases of new-born infants to challenge the attention of the profession.

"After," says the author, "the invention of the spirometer, by Hutchinson, it was soon ascertained that the capacity of the chest is greater in the erect form than in any reclined or recumbent position. This is a great fact for physiology, for pathology, and for therapeutics. The chest is a cylinder, and the diaphragm is a piston whose pump motion varies the chest capacity and causes an ingress and egress of air. In the recumbent position the liver and other contents of the abdomen press upon the diaphragm and diminish the chest capacity.

In changing from the recumbent to the erect position, this pressure is gradually removed and the chest capacity is increased. It is obvious that all that is necessary to cause air to enter the lungs, is to change the patient from any recumbent or any inclined position to the erect one; and all that is neces- to cause the air to pass out of the lungs is to move the patient back from the erect to any inclined or recumbent position. But I have discovered that the increase of capacity in the chest is slow and small in moving from the recumbent position to an elevation of forty-five degrees, and rapid in ascending from forty-five degrees to the erect position. It is therefore, not essential in practising artificial respiration, to move the patient through the whole range from recumbency to erectness, but is sufficient to use only the upper half of this range, merely mooving the patient from a forward inclination of forty-five degrees to the erect position and back again. *Every upward and backward movement produces an inspiration, and every forward and downward movement an expiration, and the two together a complete respiratory act. By regularly repeating these acts, artificial respiration is rhythmically performed, and can be prolonged at will.* Any one will find that if he leans forward from the erect position to an inclination of say forty-five degrees, he will mechanically and involuntarily expire, and if he moves back to the erect position he will mechanically and involuntarily perform inspiration. He cannot, by any power of volition, prevent the result or reverse it. *This simple movement upward and backward to the erect position, and downward and forward to a sufficiently inclined position, regularly repeated, constitutes my proposed new method of artificial respiration.*"

SMALL POX.

It is a curious fact that the effects of contagious diseases, upon the sense of fear of human beings, are as various almost as the diseases themselves. For instance, the report of a single case of yellow fever arrests the attention of every body. A few cases cause considerable alarm. A dozen cases create

a panic. During the yellow fear epidemic of 1878, in more than one instance so demoralizing was this fever, that children were even deserted by their parents.

Doubtless one skilled in interpreting mental processes might explain in great part why this is so, but the part unexplained would still remain a curious problem.

As soon as warm weather fairly begins, the eyes of the whole country keep watch upon this city, and the entire press is ready, pen in hand, to give information in regard to the first patient that dies with a yellow skin. Let even the most unfounded rumors get abroad that a suspicious case has been seen or heard of, and straightway all the cities, nay, all the States, North, East, South, and West, "batten down" the quarantine hatches, and non-intercourse becomes the order of the day. We are not questioning the right of this. Quarantine is initial sanitation, and every State should be allowed the right to take such measures as it deems fittest to prevent the introduction of contagious diseases within its boundaries. Louisiana has the same right to quarantine against Mississippi that New York has against Canada, or France against America. We are not considering the right or wrong of quarantine, but we feel impelled to notice the fact, that some people who would be so quick to shut the gates against New Orleans, have been willing to walk her streets unconcernedly all the winter, while small-pox all the time has kept a steady march toward the pest-house, and generally thence to the cemetery. During Mardi Gras festivities the streets were thronged. Recently an excursion from a sister city dotted Canal street with strange faces—the usual proportion being negroes, who are nothing less than "common carriers" of variolous poison.

We are not endeavoring to convey the idea that New Orleans is ravaged by small-pox, such is not the case; but we do say that there has died here since the first day of last December, 329 persons, and unless matters are mended in some way, a good many more will die before summer sets in. Nevertheless, we see no signs of scare, although very few would deny the greater danger and contagiousness of small-pox as compared with yellow fever.

In the history of epidemics one lesson may be learned: that communities have no sense of justice. One would think, after all that has been said, done and written against New Orleans; after all the vials of wrath that have been poured out upon her for sending contagion to neighboring cities and towns, that they—the cities and towns—would be supersensitive and especially mindful lest they convey infection to the Crescent City. On the contrary, we find nothing of the sort. At all events, we find no effort to keep back contagion. And so far, we see no decided effort to keep it out. New Orleans seems to us a sort of variolous Mecca. It looks as if everbody smitten within a radius of two hundred miles tries to get here. We have seen one patient lately who spent two days on the road, knowing the nature of his own sickness. There must be some special admiration for New Orleans cemeteries; we know of no other explanation.

"TRACING CONTAGION."

An editorial in the *New York Medical Record* of March 3d, 1883, refers to a case of anthrax occurring in a herd of cattle in Salem, N. J., the blood of which was submitted for examination to Prof. Leidy. After remarking that the blood from the spleen was found teeming with that form of bacteria known as *bacillus anthrax*, we are horrified—that is, we ought to be, and would be, if we had not been so often before by things of like character—with the statement that, "This case shows that milk is forwarded to market drawn from cows which are within a few hours of their death from splenic fever. Such milk can hardly be wholesome, and doubtless contains the bacilli capable of giving contagion."

The editor finishes what he has to say on this subject with the following grim comment: "Let us hope that the fat from the carcass of such animals is not sent to the nearest oleomargarine manufactory, as this substance is rendered only at a temperature under 120°, by the patent which is now supreme. We need not state that the thermal death-point of bacilli is far above such a temperature, and we leave our read-

ers to draw their own conclusions respecting the results when such uncooked animal produce is used as an article of diet."

This reference to the oleomargarine manufactory reminds us of an acute saying of Hazlitt. According to him, "corporate bodies are more corrupt and profligate than individuals, because they have more power to do mischief, are less amenable to disgrace or punishment. They feel neither shame, remorse, gratitude nor good will. The principle of private or natural conscience is extinguished in each individual (we have no moral sense in the breasts of others), and nothing is considered but how the united efforts of the whole (released from idle scruples) may be best directed to the obtaining of political advantages or privileges to be shared as common spoil. Each member reaps the benefit, and lays the blame, if there is any, upon the rest."

These remarks, precisely uttered, are true in every particular; but they would have been none the less so, had their author included pecuniary along with political advantages.

Hazlitt, however, had not so vivid an idea of oleomargarine, glucose, candy, and cheese factories as we of the present day. His arm was probably never scratched and contaminated by by the nastiness of a bogus vaccine farm, nor did he, we hope, ever sit down to breakfast feeling that the cream (?) in his coffee might be traced to the udder of a cow in the cavernous stage of phthisis.

A sensible writer has said lately that those born now-a-days find all the first and a goodly number of the second places taken. In this case the reference *was* to pecuniary matters; but it would have been all the more true for taking in matters sanitary. Not that we mean there are any first-class sanitary places to take. By no means. Our idea is, notwithstanding the optimistic *dictum* that life is stretching its span, and many are rescued from premature graves, that under the present condition of things in civilized life, it is the next thing to impossible for the children of to-day to go through life without being daily poisoned by what they eat, by what they drink, and even by what they breathe.

Things have come to such a pass, that to escape the evil effects of food adulteration one must live on fruits and berries,

like the birds; on roots, like the wild boar; or suck eggs, like certain bad mannered dogs. Failing these, for motherless infants, or for those of such bust-preserving mothers as prefer furnishing the *dieta lactea* by proxy, there is one more chance. In the *Popular Science Monthly* for January, 1883, p. 426, there is a picture of a nurse holding an infant to the teat of an ass. The accompanying text informs us that this is the method used by M. Parrot, of the Children's Hospital, of Paris, for nursing motherless infants suffering from specific diseases. The results obtained speak highly for the means. At all events, these little waifs escape having their pox-smitten bodies the battle ground for deadly conflicts between the *bacillus anthrax* and the *bacillus syphilitica*, inasmuch as asses never have splenic fever, nor anything else, for that matter—except obstinacy.

We should like to see M. Parrot's plan adopted in this country. A well-behaved she ass is a cheap sort of wet nurse; she calls up no misgivings in regard to certain specific taints, and above all, she bids defiance to the watering proclivities of the milk-man.

Reports of Cases.

I.

SEVEN CASES OF REFLEX AFFECTIONS OF GENITO-URINARY ORIGIN.

By T. S. Dabney, M. D.

Case 1st.—Some years ago a locomotive engineer aged about 50, of magnificent physique, a native American and a resident of a neighboring State, wrote to me, stating that he would put himself under my treatment, provided I held out any hopes to him of permanent relief.

He gave the following history: For several years past he had suffered from time to time with more or less severe neuralgic pains in the loins, right hip or left leg. These attacks lasted from a few days to several weeks. Local physicians

had been consulted at various times. The patient had been relieved also by a visit to a prominent Chicago physician, who treated him for lumbago. Finally, the patient went to Hot Springs, during an exceptionally long and severe attack. Here his case was promptly diagnosed as syphilitic sciatica, and although the patient's history was free from any grounds for suspicion, he was vigorously treated with the iodides and warm baths. After a stay of several months at Hot Springs, the patient returned home, feeling and believing himself well. In a few months another attack came on, and the gentleman having more faith in the hot baths than in the iodides, came to this city and commenced taking warm baths at the establishment of a certain quack doctor. Finding no relief he consulted a prominent Homœopathist of this city and remained under his care until he had swallowed several thousand very beautiful, but innocuous silvery looking globes, called pellets. Getting worse all the time he went home, feeling assured his case was incurable. Upon reaching home he at once placed himself under the care of a prudent physician, who was compelled to administer morphine, hypodermically, several times a day, to alleviate the distressing sciatica. After being confined to his bed for several weeks and having been kept constantly under the influence of morphine all the time and his sufferings not having been more than temporarily relieved, the patient wrote to me as mentioned above. My answer was that I suspected stone or stricture and I thought he had a chance of recovery. With the aid of a pair of crutches he boarded a train and met me by appointment at Dr. Logan's office.

Examination proved the existence of two strictures, one very near the meatus and the other deep seated. The first we cut, the second one we dilated slightly.

Whereupon the patient expressed his belief in his ability to *stand up*, a thing he had not been able to do for months, as his right leg was useless to him. I bade him rise. He did so without trouble and *without pain*. From this day on his crutches were discarded and from that day to this, about three years, the patient has enjoyed perfect immunity from other attacks. As

a matter of course bougies were passed for ten days, at the expiration of which time the patient assumed charge of his engine. Iron and quinine were given as tonics and nothing else. Allow me to say, in passing, that the patient had never experienced any difficulty in micturition and had never but one attack of gonorrhœa and that attack dated back twenty years. This was a well marked case of sciatica, due unquestionably to reflex action.

Case 2d.—I was called about two years ago to see a white child aged three years, who had in a most unaccountable manner, whilst in apparently perfect health, lost the use of his legs. The boy could no longer walk. He could not even crawl. His mother carefully spanked him for several weeks in the most approved Irish fashion—for she was Irish—thinking the boy was simply bad. Finally the mother finding no benefit accruing from counter irritants applied to the gluteal region sent for me. I at once examined the patient's penis—I always examine the penes of my patients whenever any obscure nervous phenomena are present—that is to say, provided said patients are males. Phimosis was found to exist. Upon interrogation I learnt that the child always cried piteously during micturition, and the mother said he had severe cramps on such occasions. The bladder was found, upon examination, pretty well distended, although the foolish mother assured me that the boy was making water at all hours day and night, for which she remarked she had spanked him very thoroughly, but all to no purpose.

In a few hours, with the assistance of Dr. Olliphant, I circumcised the boy. The bladder emptied itself at once of a large amount of urine. The prepuce was found firmly adherent to the glans.

Complete recovery occurred in about three weeks and with it all of his "badness" disappeared. In this case I was sent for to treat *cramps*, my dignosis of reflex paralysis of legs due to phimosis complicated with adherent preface was verified by the result of the operation. No medicine was given.

Case 3rd.—George C., colored, aged two years. This case was similar to the above. The boy had cramps whenever he attempted micturition. He had gradually lost the use of his legs and had adopted crawling as a substitute for walking. Phimosis, with adherent prepuce was found to exist. Circumcision was performed, and the boy had commenced to walk when an attack of malarial fever supervened and carried the little patient off.

Case 4th.—About a year ago, one of my near neighbors brought her baby, aged three months, to my office, and informed me that the child had suffered from colic from the day of its birth, that it seldom ever slept more than a few minutes at a time, and that its principal aim in life seemed to be crying at the top of its voice. Upon a superficial examination, the child was found to be large, rosy cheeked, and evidently well nourished.

Examination of his penis—the root of many ills that flesh is heir to—revealed phimosis. Circumcision revealed the fact that the prepuce was adherent to almost the entire gland.

This case made a rapid recovery.

Ever since the birth of this child the mother had filled its stomach with vile teas that are supposed in some mysterious manner to cure colic.

Case 5th.—B. W., aged three years, white, was put under my care for paralysis of legs.

The child's parents were healthy, and the boy himself, though spare built, seemed fairly well nourished. Several physicians had treated the little patient for anæmia. Several months having passed, and the boy being no better, I was sent for, the attending physician having been discharged. The patient, although unable to walk, had acquired wonderful dexterity at crawling. Indeed, he travelled so fast as soon as he found I was a doctor, that I at once banished all suspicion of anæmia from my mind. I bade the mother place him in the erect posture. He cried so much, and his cry denoted so acute a suffering that I told the mother to desist. Suspecting some spinal trouble, I examined the spine most carefully, but

failed to find any grounds for my suspicions. Being at my wits end, as a last resort, I examined his penis, a penis of the finest development that ever came under my observation in one so young. A very long prepuce was found, but no constriction was found to exist at its mouth. Gentle pressure on the glans penis caused a sharp cry of pain. I then attempted to retract the prepuce, but found it firmly adherent. After a good deal of labor I managed to break down all adhesions. I left instructions for the gland to be well greased every morning.

For two weeks no improvement took place. At the end of that time the boy began to stand with the aid of a chair. At the end of a month he was able to walk, with a tottering, side-long gait. Since then I have neither seen nor heard from him.

Case 6th.—Ellen B., colored, aged about five months, was brought to my office during my absence. Her parents were syphilitic, so was she. From birth she had been under my treatment for hereditary syphilis. She was brought to the office on account of crying spells during micturition, also cramps. The child had been very fretful for a long time. Dr. Olliphant being in the office, when the child was brought, made a thorough examination, and became convinced the child was suffering from retention of urine. Upon his attempting to pass a catheter, however, he was unable to find the urethra, even after a most diligent search. At this juncture, I arrived. We found the labia minora had grown firmly together from the bottom almost to the top, thus almost completely occluding the meatus urinarius. After a good deal of trouble we managed to separate the labia, and then the doctor inserted the catheter and drew off a considerable quantity of urine. The little girl's troubles were then ended.

Case 7th.—About three months ago G. T., colored, aged about three years, was brought to my office with the following history: The boy had commenced walking at an early age. He was unusually bright, and talked very fluently up to about three or four months previously. At that period he began to

become morose and irritable. He daily lost the use of some words, and at the time he was brought to my office he could scarcely articulate any words except yes and no. His gait was very peculiar. He walked sideways, never putting one foot in front of another. Indeed, the child walked, as Dr. Salomon Mueller says certain Anthropoid apes, termed Gibbons, do, that is to say, by a series of tottering sideways hops, rather than steps.

The history of the case, the peculiar, uncertain vacillating gait, satisfied me fully that the penis was at the root of all of this patient's trouble.

An examination of the boy's penis showed the existence of phimosis. Circumcision was performed. An adherent prepuce and much smegma, was found, as in all the other cases. At the time of circumcision the patient was bordering on a state of idiocy.

The patient steadily improved in his gait and in his mental acquirements, for about a month, at which time double pneumonia supervened which set my little patient back a great deal. During his convalescence he regained the use of a great part of the words he had lost. The patient is now able to walk with ease and is about as bright as the average bright mulatto of the same age.

If the seven cases reported in this paper serve to throw any light on a single obscure case, my labor will not have been in vain. As this article is purely clinical, it would be out of place for me to attempt to explain how a stricture could produce sciatica or how an adherent prepuce could produce paralysis, or how phimosis, associated with adherent prepuce, could produce a state of mind bordering on idiocy. In the language of Hippocrates, I say: "Facts are far superior to reasoning." To the physiologist and pathologist, remote effects are very important, but to the practising physician the direct cause is of sole importance. It matters not to the practioner *how* the gummatous tumors of syphilis are formed, nor how their presence gives rise to so many untoward effects.

What he wishes to know is, what will remove the tumors. He does not even care whether the absorption of the tumor be

due to the direct action of the remedy used or to a different diathesis, produced by the remedy which favors the absorption of such abnormal growths.

VIII.

FOREIGN BODY IN LARYNX. TRACHEOTOMY—RECOVERY.

By Luther Sexton, M. D.

February 9th, 1883. I was called to see Oscar Williams, æt. 2½ years, and found him in the following condition: the day before, while out at play he accidentally knocked the nail off his finger, and gave a sudden scream, at the same time inhaling a quantity of raw potatoes, which he was eating, into his larynx. He had been visited by a physician, who had administered the ordinary emetics, but to no purpose, and his suffocation had grown from bad to worse, till death seemed imminent. The potato had been inhaled twenty-four hours before I saw him. He had passed an extremely restless night in his mother's arms, as he could not inhale air into his lungs while lying flat on his back. He was unable to swallow, even water, and could not articulate. He was so nearly asphyxiated that all reflex excitability had disappeared, even the finger applied to the conjunctiva hardly caused him to shut his eye. Necessity for operating was apparent, so preparation was begun, and Drs. Roman and Butler were dispatched for to assist me. They soon arrived and concurred with me in the opinion that the baby was dying, and that to open the trachea below the obstruction was the only chance for its life. The case looked almost hopeless, and we began the operation with some trepidation, lest the patient should die under the knife.

No chloroform was administered, as the patient was so much asphyxiated that the different steps of operation elicited no expression of pain. The face was blue from congestion, the neck veins stood out like cords, all the muscles of respiration were violently acting, the features were compressed, and the eye had a death-like stare, while the gurgling sounds in the trachea reminded one of the importance of time in the case. So the operation was begun, which was found rather difficult,

owing to the short neck and excessive amount of adipose tissue. The obstruction seemed to be movable and to be located in the trachea, as well as the larynx. We therefore decided to open the trachea as low down as possible. After the first incision by transfixion, we continued the dissection more with the forceps and handle of the scalpel than with the blade of the knife, and by this means, avoided the necessity of tying any blood vessels. The hæmorrhage did not amount to more than ℥ss. We found the trachea very deeply seated, as the neck was short and fat, and we experienced considerable trouble in distinguishing the rings, but after hooking it up, a small incision was made and enlarged in an upward direction with a hernia knife. The most difficult part of the operation was yet to be accomplished, viz: introducing the tube. Our object was to insert as large a tube as possible, in order to so fill up the trachea that none of the bolus could be sucked into the bronchi. The tube in, and adjusted, with some assistance from artificial respiration and cold water, natural breathing was soon restored, and all the formidable symptoms mentioned at the beginning of the operation, soon disappeared. In fact, the reaction was so great that fever was the result, and three hours after the operation I was called to see the little patient, with a temperature of 104° Fah., and pulse 180 per minute; bowels distended. Auscultation revealed no signs of either pneumonia or bronchitis. An enema was ordered at once, and a copious action from the bowels was the result. Eight drops of aconite to ℥ii of water in teaspoonful doses every hour, were given with a most happy effect. This, in addition to a tepid water-bath reduced the fever in a short time. But fate seemed to be against the little patient, for so soon as the fever was reduced the tube became filled with viscid mucus, and his breathing was almost as bad as before the operation.

Removing the inner tube would only extract a small portion of the mucus, so I suspended the child by his heels and introduced my finger into the pharynx, with the hope of possibly removing some of the foreign body. This caused him to vomit and a considerable portion of the mucus was dislodged, and

the remainder I removed with a feather, which I found to be invaluable in the after-treatment of the case. I could moisten the feather in tepid water and remove the mucus from the bronchial tubes and trachea, with the happy result of seeing free and easy respiration immediately restored.

February 10th. I found the little fellow resting easily, but had spent a bad night, the tube becoming constantly filled with viscid mucus, causing the breathing to be very hard; temperature, 101° Fah.; pulse, 130; respiration, 35 per minute. Bowels had acted, and he had taken milk punch and water freely during the night—which he swallowed with comparative ease.

February 11th. Had passed a better night, as I had a trained nurse to attend to the cleaning out of the inspissated mucus. The inner tube had been kept out since the day of the operation, for whenever it was introduced, it seemed impossible for him to get enough oxygen. The pulse still remained 120, and breathing about 30 per minute, and extremely restless spells would occur, so bromide potash and H. Anodyne were ordered, which seemed to act well. Auscultation revealed nothing abnormal, only hurried respiration.

February 12th. A passable night was spent, the bowels and kidneys had acted fully; pulse, 115; respiration, 25 per minute.

I had discovered that the object was below the glottis, so determined to try and cause its expulsion by vomiting. This I produced by introducing my finger into the fauces and which I assisted greatly in my opinion, by having the patient suspended by his heels; free vomiting was speedy, and each time I could remove from the pharynx a large amount of chewed-up potato, and altogether it amounted to at least two teaspoonfuls, which had become covered with mucus, but had not undergone any decomposition, though it had been inhaled three days. All attempts at emesis, or to remove the obstruction in any way, up to this time, had proved futile, but the last was extremely satisfactory, and every particle of the mass was so forced through the glottic opening, that it could be easily scooped out with the finger. Feeling confident that the obstruc-

tion was all removed, I removed the tubes, and found that our little patient could breathe through the natural air passage, and had the pleasure of hearing him utter the first word he had spoken for four days. The opening was then closed with adhesive plaster and a pad, so that it could be opened at once, if necessary. We had no occasion to remove this dressing, and our patient convalesced rapidly for three or four days, when the opening closed by granulation, and the little patient had a new lease on life.

I have protracted the clinical history of this case somewhat, to bring before the eyes of the profession one or two points. 1st. Whenever we are in doubt as to the advisability of an operation for impending suffocation, always give the patient the benefit of the doubt. No case that has come under my observation has presented so hopeless a chance for recovery as the one just recorded. In fact, if the operation had been put off five minutes later, it would have been too late.

2nd. No attempt need be made to recognize the anatomy of the different steps in the operation, as stereotyped in some of our text books. Simply keep in the middle line of the trachea, and dissect with the handle rather than cut with the blade of the knife.

3rd. The invaluable assistance of the feather in removing the inspissated mucus from the tube and bronchi cannot be over-estimated. When the tube and bronchi seemed to be entirely filled with the mucus, and breathing became extremely hard, almost immediate relief was given, by inserting the feather and giving it a twisting motion on withdrawing it. The introduction of the feather into the bronchial tubes would cause a spasmodic cough, which would expel a large quantity of the mucus. At the same time, there is no danger of setting up any inflammation from this cause.

4th. The absolute necessity of a large tube is the more apparent, when we consider that the coating of mucus on the inside of the tube reduces its caliber at least one-third. If the double canula tube is used, there is no need of keeping in the inner tube, if any hard breathing is produced by its introduction.

5th. The recommendation, in some of the text books, of closing the opening by sutures seems unnecessary, as the parts can be just as evenly approximated by adhesive plaster, and so much suppuration and mucus is unavoidably retained in the wound, that union, in any other way than by granulation, can hardly be expected. And in case it becomes necessary to reopen the trachea it could be effected much more promptly.

CORRESPONDENCE.

NEW ORLEANS, March 20th, 1883.

To the Editor N. O. Medical and Surgical Journal.

SIR—I have both heard and read of a great many objections to the system of weights and measures adopted by the Committee of Revision of the U. S. Pharmacopœia Edition, 1880. Many of these objections are made by physicians and druggists, who have not perhaps given the matter sufficient attention and have not observed how very easily the old system of grains, drachms and ounces may be converted into the metric system of grammes and cubic centimetres. As a general rule a physician will write the directions to his prescriptions for mixtures, etc., in such a way as to give either a teaspoon or a tablespoonful at a dose; and in this case it is extremely uncertain what amount of any one of component parts of the remedy the patient will swallow each time; but as it is not proposed to suggest a change in the mode of administering medicine, I will simply call attention to the fact that teaspoons and tablespoons vary in contents in almost every house; and in every case where they are used for measuring purposes far greater inaccuracy in the dose is obtained than is desirable.

The above remarks are made as an apology for the slight change in quantity which will be observed in the plan adopted of omitting *fractional parts*, either of grammes or cubic centi-

metres, when converting drachms and ounces into the weights and measures of the decimal metric system, and to show that such discrepancies are for smaller, and will in no case materially alter the dose of mixture so given, while so much cannot be said of the tea and tablespoons in general use among the public.

For all practical purposes the grain may be taken to represent 6 centigrammes, the drachm, 4 grammes, and the troy ounce, 32 grammes. For liquids one minum is equal to 0.06 of a cubic centimetre, a fluid drachm to 4 cubic centimetres, and a fluid ounce to 30 cubic centimetres.

If a physician wishes to prescribe an eight ounce mixture, and in each tablespoonful dose desires to give 15 grains, bromide of potassium, 7½ grains chloral hydrate, 1 fluid drachm syrup of orange flower and water sufficient to make ½ fluid ounce; the prescription in metric weights and measures would read thus (omitting fractions).

℞ Bromide potassium.....16 grammes.
Chloral hydrate..... 8 grammes.
Syrup of orange flower ..... 60 C. C.
Water sufficient to make.....240 C. C.
Dose: tablespoonful, etc.

It will often be of service to remember that by multiplying grains by 6 the number of centigrammes may be approximately determined, and by multiplying drachms and ounces respectively by 4 and 32, the number of grammes will be found; for instance, a prescription for ten pills each to contain ½ grain of calomel, one grain of aloes, and two grains of rhubarb, may be written:

℞ Calomel..... 30 centigrammes.
Aloes..... 60 "
Rhubarb.....1.20 "
Mix and divide into 10 pills.

A table of approximate weights will be found in a former edition of the U. S. P. as well as in other works of reference, and although not absolutely correct, will serve to render the adoption of the metric system less troublesome than if the fractions of a centigramme or a milligramme were added or

substracted, without in any way interfering with the action of medicines prescribed in ordinary doses.

Although the U. S. Pharmacopœia does not specify that metric weights and measures shall be used, it is without doubt the intention of its compilers that they should be used in preference to others; since in the formulas for fluid extracts, the parts of the drug are given in grammes and the resulting product in cubic centimetres.

With regard to liquids, it would be perhaps advisable to use cubic centimetres; their multiples and subdivisions since the *idea* conveyed by the old system of fluid drachms, etc., is one of *volume*, and as liquids of varying specific gravity would necessarily occupy very different spaces, it would be almost impossible to prescribe the correct dose of a liquid by weight, unless special tables of comparison between weight and volume of each one of the pharmacopœia preparations should be at hand for reference.

Respectfully,

R. N. GIRLING.

Reviews and Book-Notices.

A Manual of Histology. Edited and prepared by Thomas E. Satterthwaite, M. D. In association with Drs. Thomas Dwight, J. Collins Warren, Wm. F. Whiting, Clarence J. Blake, and C. H. Williams, of Boston; Dr. J. Henry C. Simes, of Philadelphia; Dr. Benjamin F. Westbrook, of Brooklyn, and Drs. Edmond C. Wendt, Abraham Mayer, R. W. Amidon, A. R. Robinson, W. R. Birdsell, D. Bryson Delavan, C. L. Dana, and W. H. Porter, of New York city. Second edition, enlarged and revised, containing two hundred and two illustrations, with an appendix. New York: William Wood & Co. For sale by Armand Hawkins, 196½ Canal street, New Orleans. [Price $4.]

We see no reason, while looking over the pages of this, the second edition of Satterthwaite's Histology, to alter our first favorable opinion. It has passed the ordeal and won its way

to approval, not only in this country, but in England. It is in just the vein, and on the proper grade, to commend itself to students; we mean, of course, those who are beginning the study of histology.

We believe it is the first American text book in this branch of anatomy; and if there had been a greater number of original drawings, and fewer of those that smack somewhat of the antique, the show of original investigation would have commended it more favorably to European histologists. But we are not fault finding. Along with some that appeared ever so many years ago, are others entirely new and in every way creditable.

The work is printed in large, legible type, and is bound in a style unusual to our eyes, and which we consider altogether handsome.

A Practical Treatise on Diseases of the Skin, for the Use of Students and Practitioners. By James Nevins Hyde, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, etc., etc. 8vo., pp. 572. Philadelphia: Henry C. Lea's Son & Co., 1883. New Orleans: Armand Hawkins. [Price, $4 25.]

The few years that have elapsed since dermatology has emerged from the ranks of general practice and been recognized as a branch of medicine requiring special study, have been marked by a rapid advance in the knowledge and treatment of diseases of the skin, and this advance necessitates the publication of new works embracing the progress made from time to time in their study. Prof. Hyde has given to the profession a valuable and comprehensive work upon this special subject, exposing the etiology, symptomatology, and treatment of diseases of the skin in a concise and thorough manner. The author tells us that he has drawn largely from foreign authors, and this, coupled with his own experience, attests the value of his work.

It is a well-known fact, that most general practitioners will, whenever the opportunity occurs, treat cases of diseases of the skin, and when they do treat them will, in the majority of cases, without regard to condition, prescribe arsenic, looking

upon this remedy as a panacea for all cutaneous diseases, believing in the erroneous doctrine advanced by Mr. Thos. Hunt, that "it never fails to cure all diseases of a non-syphilitic type, if properly administered." Now, it would be well for physicians to heed the following remarks of Dr. Hyde in regard to this drug: "Arsenic is known to exert its effects almost exclusively upon the epithelia of the skin, and upon these, so far as therapeutic effects are concerned, only when they are in indolent conditions, subacute and chronic pathological states. It is know to exert an unfavorable influence upon the epidermis when the latter participates in a condition of active inflammation."

We are also told that in the treatment of skin diseases, the treatment of the general condition of the patient is as important, if not more so, than the treatment directed solely to the condition of the skin, and that attention to diet, hygiene and social surroundings will accomplish much in the direction of cure.

We do not concur with the author in his classification, which, although based upon that of Hebra, yet includes in one class diseases of entirely different natures, in the effort to place in one group diseases involved in particular regions. Far better is the classification adopted by other recent authors, and by the American Dermatological Association, which groups together diseases which are alike in their nature, the classification being based upon the pathological process. The adoption of a new system, although not to any great extent different from the other mentioned, appears to us as only likely to lead to confusion in the mind of the general reader.

Scabies is omitted from the list of diseases produced by animal parasites, and is not included in the classification.

However, the book is a valuable one for the student and practitioner, containing all the latest progress made in dermatology, and will without doubt attain the end expected by its author—to make the general practioner thoroughly informed in regard to the treatment of cutaneous diseases, and prove a valuable book of reference to the specialist.

The illustrations are all new and remarkably excellent, and contrast favorably with those found in other works upon this subject, the figure representing a vertical section of the skin, being the finest of the kind we have ever seen.

Early Aid in Injuries and Accidents. By Dr. Friedrich Esmarch, Professor of Surgery at the University of Kiel, etc. Translated from the German. By H. R. H. Princess Christian. Philadelphia: H. C. Lea's Son & Co. For sale by Armand Hawkins, 196½ Canal st., New Orleans, La. [Price, 75c.]

This little book does not address itself, except indirectly, to professional readers, consequently it demands no particular criticism at our hands. It is always safe, however, to listen when a man like Esmarch has anything to say; for this reason we have listened, and having done so, we find food for remark particularly pertinent in this number of the JOURNAL, as will appear directly.

First, however, we will call attention to points here and there, indicating the views of this distinguished surgeon. Page 45: "Sticking plaster belongs to the surgery of the middle ages." Eminently typifying the survival of the fittest. Page 61: "You find these styptics in some of the small packets used in giving 'first aid,' but from their presence you may know that such packets have been put together by inexperienced persons." The directions given for arresting hemorrhage by pressing upon the appropriate artery, are so plain and withal so brief, that they might easily be printed upon one side of the little box which holds an Esmarch bandage. Styptics are bad enough in the hands of surgeons.

Page 74: After giving much sound advice in regard to burns and scalds, some of which would be worth the heed of medical men, he advises the application of the usual oils, powders, charcoal, etc., but says nothing of bicarbonate of soda, the best, and one of the easiest of applications to get at.

Page 78: In regard to frostbite, we think those who listened to Esmarch have still something to learn. All the old advice about a cold room, rubbing with snow, wet cloths, etc., etc.,

is gone over, showing that the hot bath, the most efficacious of all, is either unknown or not believed in.

The same thing may be said of artificial respiration. The old time methods of Hall and Sylvester are explained, but McDaniel's method has evidently never been heard of. The latter, although before the profession now for some time, seems to have obtained less repute, both at home and abroad, than it deserves. It has been tried and endorsed by a committee appointed for the purpose, and Esmarch's little book would have been all the better for including it: It is proper to say, however, that McDaniel's method of artificial respiration is more particularly applicable to new-born infants, apparently dead. In the interest of science, and to see genius come by its just deserts, we have published in this month's issue, Dr. McDaniel's method.

On page 82 of Esmarch's book, appears this sentence, which Dr. McDaniel will find entirely corroborates his own views: "As life may not be extinct even after hours spent in the water, it is well to consider all drowned persons as only apparently dead. Indeed, life has not unfrequently been restored after long hours of unceasing efforts."

We have already said more than we intended, but we must say one word about the translation. It is rendered in free, vigorous, idiomatic English, unmarred by the usual bad syntax of medical men. It deserves and ought to have a wide circulation among the laity.

A Guide to the Practical Examination of Urine, for the use of Physicians and Students. By James Tyson, M. D. Fourth Edition, revised and corrected, with colored plates and engravings. Philadelphia: P. Blakiston, Son & Co. For sale by Armand Hawkins, 196½ Canal street, New Orleans. [Price, $1 50.]

It is unnecessary to again enter into an extended review of Prof. Tyson's work. These editions of the book have already been exhausted, and this in a comparatively short time is sufficient evidence that it supplies a certain demand.

Physiological chemistry is now part of the course of every first-class medical school, and the time is past when physicians

can afford to ignore the aids to diagnosis afforded by examining the urine. In fact, it is oftentimes the one factor upon which hinges precision in deciding the character of some obscure disorder.

Prof. Tyson's little book is what it claims to be; a practical guide, and those busy practitioners, who wish for light upon some baffling point, and have neither the time nor the skill for exact analysis, could not find a manual more likely to suit their needs.

We will not particularize in regard to the contents. Suffice to say that it is wittten in a smooth, easy style, every line bearing traces that the author knew beforehand just what he wanted to say, and felt able to say it.

A complete index enables one to turn to any point at a moment's notice.

The publisher's share of the work is especially commendable.

The Diseases of the Prostate; Their Pathology and Treatment. By Sir Henry Thompson, fifth London edition. Philadelphia; P. Blakiston, Son & Co. For sale by Armand Hawkins, 196½ Canal street, New Orleans. [Price 75 cents.]

Sir Henry Thompson presents rather a rare example of an original worker, who is quick to try and, if found successful, to adopt, methods of other men.

A new edition of one of his monographs may then be expected to embody the the latest additions to medical knowledge on the subject treated.

We notice, however, but few important changes. Since the 3d edition, the recent contributions to the pathology and treatment of prostatic disorders being in general mentioned to be condemned. Indeed his wide reading shows that not a few methods of treatment brought forward as new are old ones that have already failed and been abandoned. Most of the changes will be found in chapter xiii: "Operations for the Relief of General Symptoms of Prostatic Disease," chapter xviii: "The Bar at the Neck of the Bladder," and the last part of the chapter xx, on the treatment of phosphatic concretions in the bladder, due to hypertrophy of this viscus. There

are also many other *minor* changes, mainly additions, which show the care of the revision.

No mention is made of Reginald Harrison's favorable reports of "Early Catheterization" on the direction of prostatic enlargement, which to ourselves are not conclusive. By Thompson's theory of the etiology of the "bar at the neck of the bladder," its formation would in general be prevented by early catheterization. He especially denies the favorable effect of opening the bladder, through the prostate (and perineum), on the size of the hypertrophied gland. Harrison's results he would, doubtless, explain by the relief of vesical catarrh thus afforded. He strongly favors the operation in certain cases.

In the differential diagnosis between prostatic enlargement and stone, no mention is made of the signal exacerbation of symptoms in the former at night, in bed, contrary to what is observed in stone.

The indications for the medical treatment of chronic cystitis are very well laid down, and the reader not confused by av ariety of inefficient agents.

He does not mention corn silk among the agents for allaying irritability of the bladder, which has given good results in France and in our own hands.

When giving the views of others on disputed points, his summing up is so evidently fair and unprejudiced that his decisions carry judicial weight.

Also, we notice the careful attention to details of treatment that marks the practical surgeon, reminding one of Allingham's or Emmet's work. Indeed, scattered through the book are not a few "wrinkles" (to borrow a word from Sir Thomas Watson), of value to even the experienced practitioner. In conclusion, we know of no work on the subject which will so well repay perusal as this. One knows on laying it down that the book was written, not compiled, and that the author is absolutely careful, candid and fair.

Publications Received.

Preventable Disease Circulars. Illinois State Board of Health. Nos. 2, 3 and 4: Diphtheria, Scarlet Fever, Typhoid Fever.

Proceedings of the Naval Medical Society.

Early Aid in Injuries and Accidents. By Dr. Frederick Esmarch. Translated by H. R. H. Princess Christian.

Addresses Delivered on the Occasion of the Dedication of Cooper Medical College Building, San Francisco. By Levi C. Lane, A. M., M. D., etc., and by Edward R. Taylor.

Transactions of the Medical Society of Pennsylvania. Vol. xiv. 1882.

The Treatment of Acute Eczema. By George H. Rohé, M. D., etc.

A Practical Treatise on Diseases of the Skin. By James Nevins Hyde, A. M., M. D.

A Guide to the Practical Examination of the Urine. By James Tyson, M. D.

The Diseases of the Prostate. By Sir Henry Thompson.

The Functions and Disorders of the Reproductive Organs. By William Acton, M. R. C. S.

Translations of the American Ophthalmological Society. Eighteenth Annual Meeting. Lake George. 1882.

Is Gonorrhœa a Bacteria Disease? By Newberry A. S. Keyser.

Bacteria and their Presence in Syphilitic Secretions. By Robt. B. Morrison, M. D.

On the Treatment of Gunshot Wounds of the Abdomen in Relation to Modern Peritoneal Surgery. By J. Marion Sims, M. D., LL. D.

A Study of the Malformations, Variations and Anomalies of the Circulatory Apparatus in Man. By Randolph Winslow, M. D., of Baltimore. Pp. 40.

The Percentage of College Bred Men in the Medical Profession. By Charles McIntyre, Jr., M. D. Pp. 13.

Transactions of the Medical Society of North Carolina, 29th Year, and North Carolina Board of Health.

President's Address before the N. Y. Medico-Chirurical Society, 1882. By Dr. E. P. Fowler.

Medical Items.

The Sterility of Women.—Delivered at the Royal College of Physicians, February 16th, 1883. By J. Matthews Duncan, M. D., LL. D., etc., Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

Lecture I: Part I.—Its Nature and Amount.—Sterility is generally considered to imply the condition of a woman who under ordinary favorable circumstances for reproduction, does not bring forth a living child. But the term is used with many other meanings, and I shall not make a definition, because I have not the right or the power to enforce adherence to it, and because, meantime, it is indispensable to have the word for various uses; and, with the use of appropriate qualifying words, ambiguity may be avoided. Fecundity is a condition unique in gynæcology in this respect, namely, that it requires the combined matter and forces of two duly developed individuals to produce it. Sterility, therefore, may depend on error in one or in other, or in both. The sterility of man as compared with that of woman is a simple matter. It depends on failure to produce semen; the production of semen more or less incomplete or imperfect; or of morbid semen, that is, semen conveying disease; or on failure to deposit semen properly. With a view to investigation, semen can be subjected to chemical and microscopical analysis; the depositing organ can be examined, and the conditions of the deposition can be ascertained. In women, the co-ordinate substances and functions are hidden and much more complex, and in her there are great organs and functions which have in the male no equivalent representative. In the present lectures, the sterility of man is not a subject for consideration, but one point in it cannot be passed over without some discussion, viz., its numerical amount. Much of our knowledge of the sterility of women consists in numerical statements with regard to amount under various circumstances, chiefly in marriages; and all such statements have a certain positive value for the physician, and still more for the political economist. But it is plain that, when inquiring into the amount of sterility due, not to unions or marriages, but to women, we must exclude what is due to the male. Some good notion of the amount of this latter sterility is, therefore, indispensable. Several investigators have attempted the solution of the question in recent times; but I refer only to the new work of Gross on *Male Sterility*. "It is not at all uncommon," he says, "for physicians to assume that a man who is potent and able to ejaculate is capable of procreating. As a result of the omission to examine the emitted fluid, and carefully to explore the male organs,

little is known of the relative frequency of sterility in the two sexes; and gynæcologists, with the exception of those mentioned below, do not appear to have made any contributions to the solution of this important subject. I have been able (he continues) to collect 192 cases in which an examination of both husband and wife demonstrated that the former was in fault in 33, or 17 per cent? Of this number, Manningham records 1 in 30; Pajot 7 in 80; Moudot 1 in 10; Kehrer 14 in 40; Courty 1 in 10; Noeggerath 8 in 14; and I have myself found that the male was deficit in 1 example in 8. The cause of sterility was: azoaspermism, that is want of spermatozoa, 31; aspermatism, that is, the absence of semen entirely, 2. These facts show that the husband is at fault, according to Gross, in about one case out of every six." The matter is, however, still in a very insecure state, as may be shown by the statement of facts and considerations which must have important bearings on the question; but which, so far as I know, have been entirely neglected. Thus, it is assumed, by the examination of the male and the female, that we can decide whether one or the other, or both, are at fault. Now, no doubt, impediments, or complete barriers to reproductiveness, may be found in individuals of either sex; but, in the great majority of cases of sterility, no impediment or barrier can be discovered by the most careful and minute investigation. This is verified by comparative observations in animals and in plants, wherein such inquiries can be carried to a completeness not attainable in the case of men and women. It is held that the man is not at fault if he duly ejaculates microscopically perfect semen; but this is certainly not a warranted conclusion, as facts in human and comparative physiology, to be hereafter stated in these lectures, will show. In making the estimates of male sterility, no account is taken of the fact that the faulty condition of the man's semen may be only temporary. It is forgotten that sterility may be due to faults in the semen, even though conception has taken place and pregnancy has been established, the fœtus fading and dying prematurely from some inscrutable causes, or being monstrous, or perishing from disease implanted by the male. It is forgotten that both parents may be simultaneously at fault, and this with or without discoverable cause —generally without discoverable cause. Speaking of the sterility induced by domestication and that of hybridity, Darwin remarks that, in both, the sterility occurs in various degrees, and in both, the male element is most likely to be affected, but sometimes the female more than the male. In another place, speaking of the liability of plant to be affected in their fertility by slightly changed conditions, he says it is the more remarkable as the pollen, when once in process of formation, is not easily injured. The plant, he adds, may be transplanted, or a branch with flowers and buds may be cut off and placed in hot water, and the pollen will be matured.

Pollen, once mature, may be kept for weeks and months. The female organs are more sensitive, for Gärtner found that dicotyledonous plants, when carefully removed, so that they did not in the least flag, could seldom be fertilized; this occurred even with potted plants, if the roots had grown out of the hole at the bottom.

Whatever may be the causes of sterility in women, there is an universal profound belief, which no investigations have shaken, that in the human species the paramount source of sterility is in the female. I know of no scientific statement worthy of confidence as to the comparative influence of the two sexes. The data of Gross, which I have quoted, contributing as they do towards the settlement of this question, are of importance and value of themselves, though very far from substantiating the conclusion as to the amount of male sterility which he enunciates. Of the sterility of women in whom, from gross and well-known causes, conception is impossible, these lectures take no account. Among such are cases of absence of the uterus and imperforate vagina—conditions so rare that, in the present state of our knowledge, they do not affect statements as to women generally.

In describing sterility, it is common to qualify it as absolute or as relative. No author on human sterility uses the term, without qualification, as including relative sterility; but, when used without qualification, it includes at least absolute sterility. Absolute sterility, sometimes called congenital, including all cases where there is no child, no miscarriage, no abortion, however early, comprises two sets: first, those where there is no conception; and, secondly, those where the impregnated ovum disappears in the tube or uterus without leading to what is recognizable as an early abortion. Some cases of women aborting every month are well known. There is discharge of a highly developed decidua every four weeks, and there may be no trace of an ovum in it; and this monthly discharge is arrested by suspension of cohabitation. But there may be many abortions earlier than this without these conditions, and of such nothing is known. They are classed along with those cases of absolute sterility where it is supposed that no conception takes place. In cases where there is no conception, there may be no possibility of conception, from failure of the ovary to prepare and mature an ovum. These varieties of absolute sterility are well illustrated and easily made out in the history of animals, and still more of plants. Sterility, when absolute, implies a failure to produce a viable child, while there may be evidence of conception—that is, of the commencement of the production of the embryo. A woman may be sterile because the ovum perishes *in utero*, or becomes unnaturally developed, as in myxoma of the chorion and some monsters, and this premature death and unnatural production may be owing to ovuline imperfections derived from the male or female. A woman

may be sterile because the womb does not afford to the ovum due accommodation or nourishment, or neither; or because the womb ejects it prematurely from its cavity, and these unnatural conditions may arise from local or constitutional causes. In absolute sterility, and in sterility not absolute, there is no production of a viable child; no addition is made to the population, and all such sterility is sometimes, by economists, considered absolute; for, indeed, in the point of view of population it is so, but to me it appears desirable to restrict the term "absolute sterility" to those cases where there is no evidence even of conception. "Sterility" indicates a larger group, including that of absolute sterility, and all those other cases where no addition is made to the population.

There is another great department of sterility no less important than the kinds just mentioned, where a woman may produce one, or even several living children, but in number not according to her condition, age, and length of married life. This is called relative or acquired sterility. The gardener may have a plant producing not a single flower, absolutely sterile; or producing flowers and setting seeds, but bringing none to maturity, or if to maturity not to perfecttion; a sterile plant which cannot continue it species. But he may also have a plant which produces flowers and matures perfect fruit, but in such small number as not to save it from the charge of sterility; and this is relative sterility. In woman this is often seen in cases of production of a single child; an only-child sterility, if such a seeming contradiction in terms can be permitted. A woman may be relatively sterile, from producing, according to her age, only a small number of children with ordinary intervals between the successive births, or from the number being rendered small by the extraordinary delay and loss of time between the successive births, or in other ways. All kinds of sterility may be congenital or acquired; it is therefore undesirable to use these terms as indicative of conditions. For instance, an absolute sterile woman—one who never conceives—may be so not merely from congenital causes, but also from disease acquired in advanced life. Or, again, a relatively sterile woman may be so not from an acquired cause, but from conditions which, in her, were congenital.

The amount of sterility in women, including the relative kind, is found by counting the number of productive and unproductive marriages of women within the reproductive age—say, generally, from fifteen to forty-five. Lever, giving no numerical details, says, five per cent. of married women are wholly unprolific. West found the proportion of sterile marriages, among his patients at St. Bartholomew's, to be one in every eight. Hedin, a Swedish minister, noticed in his parish of eight hundred souls, that one barren woman was not met with for every ten fertile women. Frank and Burdach roughly state that one marriage in five is unproductive, but they give

no data. Simpson made an enquiry into the sterility of married women in Grangemouth and Bathgate. Of 210 marriages in Grangemouth, 183 had offspring, and 27 none; about one marriage in ten was without issue. Of the 27 unproductive marriages, all the subjects had lived in wedlock five years, and the female had been married before the age of forty-five. Of 402 marriages in Bathgate, 365 had offspring, and 37 none; one in eleven being unproductive. There were at the same time living in the village 122 wives and widows, and of these 102 were mothers, and 20 not mothers; or about one in six had no family. In all, there were 467 wives and widows; 410 had offspring, and 57 none; or about one marriage in eight was unproductive. Of these last 57, six had not been five years married, and other six were above forty-five when married. Subtracting these 12, we have 455 marriages, 410 being productive and 45 unproductive; or one in ten without issue. Simpson found that, among 495 marriages of British peers that lasted five years or more, the husband being under fifty-seven, 81 were unproductive; or one in six. Ansell found that, among 1,919 marriages of spinsters in the upper classes, the average age being twenty-five, and not counting as childless those who had merely still-born children, there were 152 without issue; or eight per cent.—nearly one in twelve. In this collection, all the parents survived the child-bearing age; and he considered that there was no further chance of child-bearing if the female was over forty-eight, and had no child for two years; or if over forty-seven, and had had no child for three years; or if under forty, and had had no child for ten years.

I have taken the registers of Edinburg and Glasgow for 1855, and have ascertained the number of first living children in that year. With this I compare the number of marriages in that year. It is evident that the number of first children only should be counted, for they indicate all the wives who are not sterile. If one living child is born to a marriage, that marriage is not sterile. Further, it is evident that, although the first births in 1855 were not all pertaining to women married in that year, it may be assumed that, if the marriages are nearly the same in number for a few contiguous years, any of the first births in one year will give pretty accurately the fertility in contiguous years. From this fertility, sterility can be computed. In 1855, there were, in Edinburgh and Glasgow, 4,447 and 3,722 first living children leaving 725 marriages sterile, or one in six. But in these figures are included 75 marriages which did not take place until after the women had passed the age of forty-four. This will damage the physiological value of the statement, as these 75 could not be expected to be fecund. Of women between the ages of fifteen and forty-four, there were married, 4,372. Among women of the same age, 3,710 had first living children, 662 marriages were sterile, or one in six; in

other words 15 per cent. of all the marriages between fifteen and forty-four were sterile. This statement from Edinburgh and Glasgow has to be corrected for the dead-born; these not being counted. We have thus good statements of sterility, which do not differ much from one another; in St. Bartholomew's, one in eight; at Grangemouth, one in ten; at Barthgate, one in ten; among British peers, one in $6\frac{1}{2}$; Ansell gives one in twelve among the upper classes; in Edinburgh and Glasgow, one in seven, including those who have born dead children. The highest estimate (omitting the peers) is the last, and it is probably the only one in which living children are used to the exclusion of dead as the index of fecundity. Were dead children included, there would be a great reduction: at least 4 per cent. The lowest estimate of sterility is that of Ansell, where a woman having a still born child is held as fertile; and the women are amongst the best in the community, those living in easy circumstances, and making use of the protection of life-assurance. Were it otherwise, the estimate of sterility would, no doubt, be higher. We have thus estimates of sterility varying from one in seven to one in twelve; and considerable confidence may be had in the statement that about one in ten is the true amount.

I know of no estimate of those who are absolutely sterile, that is who do not conceive, or who if they do conceive, give birth not even to an abortion. But they are a large number in the better classes; for within the last five years there have consulted me, mostly on account of sterility, 504 absolutely sterile women married between the ages of fifteen and forty-five, and of these 337 were more than three years married. Though this shows a large number of cases in existence, it gives no amount of estimated frequency among the married. The following table gives a classification of these 504 married and absolutely sterile women according to age at marriage, and number of years married.

TABLE I.—*Case-book Table of Sterility.*

Age at Marriage.	Years Married.							Tot'l.
	Und. 3	4 to 8	9 to 13	14 to 18	19 to 23	24 to 28	29	
15–19	12	19	15	4	7	2	1	60
20–24	70	66	37	24	13	9	—	219
25–29	47	51	20	8	8	—	—	134
30–34	26	20	8	4	1	—	—	59
35–39	6	13	4	—	—	—	—	23
40–45	6	3	—	—	—	—	—	9
Totals	167	172	84	40	29	11	1	504

The economist makes many estimates, such as the deficiency of offspring in actual marriage, or the deficiency of actual births below what they might have been if all the women in the population had been married at the most favorable time for child-bearing. The solution of these and similar questions is an object of greater interest to statesmen than to physicians; they demand for their solution much calculation, and need not be entered on here. The degree or amount of relative sterlity in average individuals varies, of course, according to the age of marriage, and it is not to be estimated by the deficiency below what is possible in child-bearing, but below the average amount of fertility in marriage at the various ages, or below what is not excessive—what can be done without injury to the average mother's health. The average individual woman must be found and considered, for individuals vary extremely. It is not a rare observation, and I have one before me, where the easy birth of a single child exhausted the fecundity of a healthy woman twenty-five years of age at the time of the birth, and completely ruined her general health during the remaining child-bearing period of life. This woman was examined by many physicians, and all concurred in finding no cause of weakness and inability but child-bearing. On the other hand, Ansell, records the case of a woman married at twenty-one, who in twenty-seven years gave birth to twenty-five children who all reached adult age, and the mother died of old age at eighty-eight.

Only-child fertility, or one-child relative sterility, occurs in two forms—as exhaustion of the fertile energies, leaving the general bodily health vigorous, or as exhaustion of both sexual power and general constitutional strength. It is a relative sterility which is familiar to the public from its frequency and its importance in social respects. In 1,767 fertile marriages of women of the age of twenty-five years, allowing ample time for the exhibition of fecundity, Ansel found 131 cases of one-child relative sterility; or one in every thirteen fertile marriages. The amount of this relative sterility may be approximated by comparing it with the average fertility of the same women in Ansell's table, which was nearly six; or, in other words, the relative sterility of these 131 only-child women was 655 children. Instead of having 131 children, they would have had 786, if they had even reached the average fertility of their 1636 sisters; and they would have had still more if they had reached a normal fertility instead of this average fertility; meaning by normal fertility, what they might have had without injury to health, judging them by other women.—*British Medical Journal.*

Puerperal Hemorrhage.—Dr. Mundé concludes a paper read before the N. Y. Academy of Music, by making reference to the means of preventing hemorrhages, primary and second-

ary. The following rules were given for the management of the third stage of labor and the early puerperal state:

1. Always keep the hand on the fundus uteri from the moment the head appears at the vulva until the placenta is expelled.
2. Do not hasten the expulsion of the placenta too much.
3. Always watch the uterus with the hand, using gentle friction occasionally, for at least one hour.
4. Always give ergot by the mouth immediately after the birth of the child. If chloroform has been given, or if the labor has been unusually tedious, give ergot hypodermically, injecting a syringe full of the fluid extract to the depth of one inch near the umbilicus.
5. If the uterus shows a reluctance to remain contracted, rub the fundus gently with a piece of ice, or insert a cone-shaped piece into the cavity.
6. Always make sure by palpatation and percussion that the uterus contains no coaguli.
7. Apply the child to the breast early.
8. Apply an equably tight binder, and, if there be tendency to hemorrhage, a pad should be placed over the fundus to secure its steady compression.
9. If there be laceration of the cervix or vagina, future oozing may be checked by mild astringent injections, or, if need be, by applications through the speculum. Immediate suture for laceration of the cervix appeared to him to be rarely feasible.
10. Do not allow the lying-in woman to leave her bed before the tenth day.
11. See that the bladder is empty and is not interfering with uterine contraction.
12. See that the nozzle of the syringe is not introduced too far, and that too much force is not used in giving the customary cleansing injection.

Dr. W. M. Polk, on invitation, opened the discussion, and said that he had seen but one case of secondary puerperal hemorrhage, meaning thereby hemorrhage sufficiently profuse to produce marked exhaustion in the course of twenty-four hours, and in that instance it occurred fifteen days after confinement. He applied a tampon because the uterus was firmly contracted, not large; and besides, he watched the organ very closely. He had a misfortune with it, which he believed was worthy of being borne in mind. The tampon was wet with a solution of persulphate of iron in water, three parts of water and one of the liquid preparation of the iron. It remained in position about twelve hours, and after its removal he instructed the nurse to thoroughly syringe the vagina; but she neglected to do so, and the consequence was complete atresia of the vagina, which required a secondary operation for its relief.

Dr. Polk also referred to a second case, which occurred in the practice of one of his friends, in which the hemorrhage occurred on the fifth day after confinement, and followed an intra-uterine antiseptic injection given through an ordinary catheter. In that case hemorrhage was so profuse that death took place almost immediately. He thought that the possibility of the occurrence of this accident should always be borne in mind in the usual habit of washing out the uterus with antiseptic solutions after confinement. Dr. Polk believed that the causes of this form of hemorrhage could be arranged under two heads: first, local; second, constitutional. His rule has been, when he had to deal even with milder degrees of septic inflammation of the endometrium, to be closely upon his guard against the occurrence of this accident. The tendency to improper contractions of the uterus in consequence of septic disease, and a failure to establish proper organization of the clot for the complete closure of the vessels, renders very trivial causes sufficient to produce hemorrhage. The conditions likely to interfere with the proper organization of the coaguli in the ends of the uterine sinuses are, unfortunately, very numerous. In the first place, all septic inflammations belonging to the uterus in the parturient state exert a marked influence in this direction. The other causes were chiefly constitutional, and were summed up under the head of cachectic states, such as malarial poisoning, or poisoning from any of the minerals, as mercury, lead, etc. He did not approve of the practice which formerly prevailed, of forcing the uterus back into the hollow of the sacrum by means of heavy compresses and bandages, for the reason that such mechanical pressure gave rise to congestion of the organ, and was liable, sooner or later, to be followed by hemorrhage. Dr. Polk also preferred hot water to cold. He had seen a good deal of prostration produced after prolonged use of cold, and he had not seen any ill effects follow the use of hot water. Water into which the hand could be placed and retained was not too hot for the uterus, and he thought this was a sufficient test for the temperature of the water. So far as immediate operations upon the cervix were concerned, he agreed with the author of the paper, that they were out of place. He thought the observations made by Dr. C. C. Lee had proved conclusively the correctness of this conclusion.

Dr. E. L. Partridge directed attention to some of the less severe cases than those which had been mentioned by Dr. Mundé and Dr. Polk. He thought that only one half of the question had been stated when it was said that secondary hemorrhage was due to retention of clots and portions of the secundines, etc., and that the real question was: What is the condition that allows this improper uterine contraction? He then proceeded to speak of the predisposing causes, both local and constitutional, which might give rise to secondary uterine

hemorrhage. For example, a woman who suffered from such symptoms as would naturally be attributed to disorders of the circulation, such as headaches due to anemia, attacks of syncope, etc., would be liable to the occurrence of hemorrhage after labor. With regard to local predisposing causes, he mentioned chronic uterine diseases of various kinds, chronic cellulitis, which led to an increase in the size of the organ due to the preponderance of fibrous structure which was liable to interfere with perfect contraction of the organ at the termination of labor. The only alarming case of secondary puerperal hemorrhage which he had seen occurred on the ninth day after labor. It occurred suddenly, and was found to be the result of an annular slough which involved the entire vaginal end of the cervix. The loss of blood was sufficiently profuse to seriously jeopardize the patient's life. The history of the labor was that of early rupture of the membranes. And with regard to early rupture of the membranes, he had found that the persistence of the hemorrhage element in the lochial discharge was very likely to exist, and it might be sufficient afterward to produce what might be called hemorrhage. In such a case as that reported by Dr. Mundé he would not hesitate to use a tampon, but, generally speaking, he would not hasten to apply a tampon until he was convinced that all other methods for controlling the hemorrhage were futile, because he thought there was a liability to the absorption of septic material.

Dr. Partridge then made special reference to the importance of compressing the uterus for some time after the completion of labor, and for the purpose of preventing the occurrence of secondary hemorrhage.

Dr. H. T. Hanks concurred in nearly all the statements made by Dr. Mundé, and made reference to cases of undoubted malarial origin which had come under his observation. In one the hemorrhage occurred fourteen days after delivery. It was controlled by the use of a battery and injections of hot water. He agreed with Dr. Polk that hot water was the more easily obtained, and more agreeable to the patient, and more effectual than cold. It could be easily injected through Chamberlain's long glass tube, or a small gum-elastic catheter. He did not approve of the use of the tampon. He also thought it unnecessary to give a dram of ergot in all cases of labor. If there was any evidence of impending danger, certainly the ergot should be used, but if the patient was all right, why give something which produced uterine colic?

Dr. Mundé, in closing the discussion, said he did not concur with Dr. Polk with regard to the effect produced by the binder and pad. He thought their use was simply the application of the same principle which was so frequently applied for the arrest of hemorrhage in any other part of the body. With regard to the use of heat or ice, he did not wish to be understood that he would use ice-water, but he would simply take

a piece of ice and rub it over the fundus, or introduce a piece into the cavity of the uterus. It had been his experience that the patient complained more with regard to the use of hot water than the use of cold. Dr. Partridge's remarks were exceedingly proper with regard to the etiology of hemorrhage in certain cases, but it had not been his purpose to enter upon the subject of the etiology of uterine hemorrhages which were of a more chronic character. He wished to speak chiefly of the acute cases. The subject of protracted lochial oozing he thought had not been sufficiently elaborated. He believed that the condition was exceedingly common, and that a great deal could be done in the way of its prevention and cure. With regard to the use of the tampon, he did not wish to be understood as recommending its introduction after delivery of a full-grown child. It certainly was a risky practice, but in his case he preferred to take the risk rather than to allow the patient to lose another drop of blood. But it should be insisted upon that it be very carefully watched. He did not believe that it was always necessary to use ergot after delivery, but at the same time he thought the woman was a little more safe with than without it, and he did not believe that it did any harm.

Dr. Polk remarked that he did not mean to criticise the application of the binder and compress, but simply wished to speak of the custom of continuing it for a week or ten days after labor.—*American Practitioner*, March, 1883.

Treatment of Aggravated Hysteria and Certain Allied Forms of Neurosthenic Disease.—Dr. W. S. Playfair concludes an interesting and quite exhaustive article on this subject as follows:

The principal elements in the systematic treatment of these cases are—

1. The removal of the patient from unhealthy home influences and placing her at absolute rest.

2. The production of muscular waste and the consequent possibility of assimilating food by what have been called "mechanical tonics," viz: prolonged movement and massage of the muscles by a trained shampooer, and muscular contractions produced by electricity.

3. Supplying the waste so produced by regular and excessive feeding, so that the whole system, and the nervous system in particular, shall be nourished in spite of the patient.

On each of these I shall offer one or two brief observations:

1. The removal of the patient from her home surroundings, and her complete isolation in lodgings with only a nurse in attendance, is a matter of paramount importance. This is a point on which I am most anxious to lay stress, since it is the great crux to the patient and her friends; and constantly appeals

are made to modify this, which I look upon as an absolute *sine qua non*. I attribute much of the success which I have been fortunate enough to obtain in my case to a rigid adherence to this rule. In almost every instance of failure in the hands of others of which I have heard, some modification in this rule has been agreed to, in deference to the wishes of the friends—as, for example, treating the case in one room by herself in her own house, or in admitting the occasional visits of some relatives or friends. While, however, the patient is to be rigidly secluded, it is incumbent to secure the attendance of a judicious nurse, with sufficient intelligence and education to form an agreeable companion. To shut up a refined and intellectual woman for six weeks with a coarse-minded, stupid nurse can only lead to failure. I have had more difficulty in obtaining suitable nurses, sufficiently firm to insure the directions being carried out, and yet not over-harsh and unsympathetic, than in any other part of the treatment. Whenever my case is not doing well, I instantly change the nurse—often with the happiest results. In addition to the isolation the patient is put at once to bed, to secure absolute rest. In many cases she is already bedridden; in others there has been a weary, protracted effort, and the complete repose is in itself a great gain and relief.

2. Under the second head comes systematic muscular movement, having for its object the production of tissue waste. This is administered by a trained rubber, and here again is a great practical difficulty. The so called professional rubbers are, in my experience, worse than useless, and I have had to teach *de novo* a sufficient number of strong, muscular young women; and the aptitude for the work I find to be very far from common, since a large proportion of those I have tried have turned out quite unsuited for it. I cannot attempt any description of this process. I need only say that it consists in systematic and thorough kneading and movements of the whole muscular system for above three hours daily, the result of which at first is to produce great fatigue, and subsequently a pleasant sense of lassitude. Subsidiary to this is the use of the faradic current for about ten to twenty minutes, twice daily, by which all the muscles are thrown into strong contraction and the cutaneous circulation is rendered excessively active. The two combined produce a large amount of muscular waste, which is supplied by excessive feeding; and in consequence of the increased assimilation and improved nutrition, we have the enormous gain in weight and size which one sees in these cases, it being quite a common thing for a patient to put on from one to two stones in weight in the course of five to six weeks. The feeding, at regular intervals, constitutes a large part of the nurse's work. At first from three to five ounces of milk are given every few hours; and for the first few days the patient is kept on an exclusive milk diet. By

this means dyspeptic symptoms are relieved, and the patient is prepared for the assimilation of other food. This is added by degrees, *pari passu* with the production of muscular waste by massage, which is commenced on the third or fourth day. By about the tenth day the patient is shampooed for an hour and a half, twice daily, and by this time is able to take an amount of food that would appear almost preposterous did not one find by experience how perfectly it is assimilated, and how rapidly flesh is put on. It is the usual thing for patients to take, when full diet is reached, in addition to two quarts of milk daily, three full meals, viz: breakfast, consisting of a plate of porridge and cream, fish or bacon, toast and tea, coffee and cocoa; a luncheon, at 1 P. M., of fish, cutlets or joints, and a sweet, such as stewed fruit and cream, or a milky pudding; dinner at 7 P. M., consisting of soup, fish, joints, and sweets; and, in addition, a cup of raw meat soup at 7 A. M., and 11 P. M. It is really very rare to find the slightest inconvenience result from this apparently enormous dietary. Should there then be an occasional attack of dyspepsia it is at once relieved by keeping the patient for four and twenty hours on milk alone.

Such is a brief outline of the method to which I am here to direct your attention. As to the results, I have already published several remarkable illustrative cases, so that it is perhaps not necessary to do much more in this direction. I may say, on looking back at my cases, that the only ones with which I have any reason to be disappointed are those in which the primary selection has been bad; and in the few in which the results were not thoroughly satisfactory, I had doubts as to their suitability for the treatment, which I expressed beforehand. These include one case of chronic ovarian disease, and one of bad ante-flexion with fibroid enlargement of the uterus, in both of which the local disease prevented any really beneficial result. In the third I had to stop the treatment in a week, in consequence of cardiac mischief; two others were cases of positive mental disease, and in one case there was true epilepsy. I have no doubt that any positive coexistent organic disease of this kind should be considered a contraindication. In my other cases the results have been all that could be wished, and in many of them the patients have been restored to perfect health after having been helpless, bedridden invalids for years; in one case twenty-three without ever putting a foot to the ground, in others sixteen, nine, six, and so on. In two instances my patients were in such a state that it was found absolutely impossible to move them except when anesthetized; and they were brought to London by the medical men long distances under chloroform, in each case leaving in six weeks perfectly cured.—*Canada Medical Record.*

THE INDICATIONS FOR THE USE OF DIGITALIS.—Dr. J. Milner Fothergill, in a paper published in a recent number of the *Glasgow Medical Journal*, says, touching the use of digitalis:

The correct use of this potent remedy—invaluable in certain cases of lack of power in the heart—is scarcely as yet general. Old established views take a great deal of uprooting; and yet they must be uprooted before new views can be built up in their place on the same ground. Digitalis was long regarded as a cardiac sedative, "the opium of the heart," because it rendered the heart's action slower or leas tumultuous. Slower, certainly, in those cases where the rapidity is due to the action of an irritable muscle; irritable because becoming exhausted. But when the rapidity of the heart's action is due to nervous disturbances the digitalis is useless, or very nearly so. Digitalis then is not useful "because it slows the action of the heart." This is an error. In many cases it exercises no action worth estimating upon the rapidity of the heart's contraction. While in others it is of the greatest service when the action of the heart is not accelerated before its administration, nor slowed while the good effects are being felt. "Less tumultuous," most certainly, in many cases. Where a heart is laboring hard, yet accomplishing little—when the muscle is doing its best to the utmost of its power, but is heavily handicapped—then digitalis will usually calm its action, not, however, by any sedative effect, but by increasing the vigor of the cardiac contractions. In other words, it may be said that digitalis achieves the more complete emptying of the ventricle at each systole; and that is what is wanted in these cases.

Now, sometimes digitalis will both slow the heart's action and do away with palpitation at one and the same time. This is most commonly seen in simple dilation of the left ventricle, without necessarily any valvular lesion; the mitral valve may leak, but not as the result of any distortion of the valve curtains, but rather the ostium has stretched with the yielding of the heart-muscle, and the valve curtains become insufficient to close the ostium completely on the contraction of the ventricle. Such a condition is common where the dilation has taken place too swiftly for the valve curtains to stretch *pari passu* with the yielding of the muscle. Here digitalis is usually of priceless value. But its utility will be greatly enhanced here by putting the patient at complete rest; which means strictly confined to bed—just as much as if the case were one of broken thigh.

"Digitalis is to be given in mitral disease, but withheld in aortic disease," is a rule of thumb driven into the student's mind, like a nail into a plank, by some teachers. Well, as a broad rule it is well enough; digitalis is usually of service in mitral disease; but how about aortic disease? When a fairly hypertrophied left ventricle is struggling against a contracted aortic orifice, but not quite successfully, how about digitalis?

The system is suffering for want of arterial blood because the ventricle is unequal to driving *a sufficiency of blood through the narrowed ostium in the normal time* to keep the arteries full. Here digitalis often acts most potently, indeed furnishes the most brilliant illustration of its properties. By increasing the vigor of the driving power—the ventricular contractions—the normal amount of blood is pumped into the arteries in the normal time, and tissue nutrition is improved every where, including the structures of the heart itself. Or aortic regurgitation is dilating the left ventricle too swiftly for hypertrophy to be built up to arrest the dilating process; what is the value of digitalis here? Simply inestimable. It arrests the dilating process! the ventricle recovers its size, and, with that, much of its vigor; the muscle is better nourished, and then that compensatory hypertrophy is built up which often enables the patient to pursue an active life for years.

Certainly, on the other hand, both in aortic stenosis and aortic regurgitation, while the muscular compensation is complete and sufficient, and the patient is fairly well, there is no good end to be attained by giving digitalis. We do not give digitalis because there is valvular disease present, but when the system is suffering in consequence of the said valvular lesion. The digitalis has no influence upon the injured valve. But it is of mighty service when the muscular hyperplasia, which compensates the valvular defect to a great extent, is not provided by the powers of nature. By the aid of digitalis the natural powers will often be enabled to surmount the difficulty and secure a muscular growth, or hypertrophy, which is practically compensatory. Such compensation by muscular hypertrophy is most perfectly seen in aortic stenosis. And on this hangs the good prognosis of aortic stenosis.

It is quite clear that under these circumstances the action of digitalis is powerfully aided (1) by rest, reducing the demand upon the heart; (2) good food to aid in nutrition of the tissues; and (3) iron as a hematic. In mitral disease the effect of digitalis upon the right ventricle often leads to most satisfactory results.

Now, when we come to discuss the effects of digitalis upon the right ventricle, there is something more to be considered than the heart merely. There is the respiration! Ordinarily we breathe eighteen times per minute or thereabouts. There are about two hundred and fifty inches of "residual" air in the thorax, and the act of respiration takes place normally about eighteen times per minute. By such "tidal" air the "residual" air is kept fairly pure. But when the thoracic space is encroached upon either by (*a*) air in emphysema; by (*b*) connective tissue in cirrhosis; by (*c*) diminution of the caliber of air-tubes from thickening of the bronchial lining membrane; or (*d*) by engorgement of the blood vessels in mitral disease, then the respiration must be more frequent in order to keep

the residual air fairly pure. The stimulus to respiration is the effect of venous blood, laden with carbonic acid, upon the respiratory center in the medulla.

When there is an excess of carbonic acid in the blood circulating in this center, then the respiratory efforts are increased in vigor until the excess of carbonic acid is got rid of. Now, when the right ventricle is embarrassed, it is not usually enough to give digitalis to increase the energy of the contractions of the right ventricle. Though, of course, all medical men of much experience have met with striking illustrations of the almost magical effects of digitalis in the pulmonary engorgement of mitral disease; many also can tell of cases where digitalis failed to afford relief under these circumstances, or even increased the respiratory embarrassment. Now, my rule for some time past has been, under these circumstances of mitral lesion, no matter of what form, with embarrassed respiration, to give strychnia, a well recognized "respiratory stimulant."

Here, the effect of the digitalis upon the right ventricle, and that of the strychnia upon the respiratory center, work together for good with most satisfactory results. The good effects of this combination are conclusively demonstrated in those cases where digitalis, given alone, fails to do good, but where the addition of strychnia at once makes a striking alteration. Inversely, when there exists any condition of lung or bronchiæ by which the respiration is embarrassed, or the thoracic space diminished, then digitalis may be added to the cough mixtures with decided advantage. Whenever the breathing is embarrassed and the radial pulse feeble, while the contradictions of the heart are vigorous upon auscultation—a condition which tells that the right side of the heart is laboring—then digitalis may be given with a respiratory stimulant, as ammonia, or nux vomica, or both, to the great relief of the patient. Usually, that is. Of course, if there be anatomical changes which forbid real relief, then the effects are less palpable. The proper relation of digitalis to stimulants of the respiratory center is a matter not understood as generally as is desirable.

The indication then for digitalis is not a murmur in the heart, nor a certain form of valvular lesion, nor tumultuous action, nor yet rapidity of action, but, as Rosenstein has put it, whenever it is desirable "to fill the arteries and empty the veins." That is the impression which each student of medicine should form in his mind as to the action of digitalis. If he would do so, the doubts which otherwise may beset his mind in the exigencies of practice will not often embarrass him. To remember Rosenstein's axiom will serve him well many a time and oft, when in doubt as to what to do—to give or withhold digitalis. Say it is a case of aortic regurgitation: if the arterial system is well filled then digitalis is contra-indicated; but if the wall of the

heart be yielding in the later stages, then surely it ought to be given. In almost all cases of mitral lesion digitalis is indicated. But there is another condition in which digitalis is sometimes given with injurious effects which contrast with these conditions. The hypertrophied gouty heart often palpitates when there is arteriole spasm, and the larger arteries are tense and full of blood. The resistance offered by this full arterial system to the onward flow of the blood at the cardiac systole is such that the ventricle palpitates in its efforts to contract effectually. Such a condition is commonly seen in the "chronic Bright's disease without albuminuria;" so well described by Dr. Mahomed. Here digitalis does no good, but harm; for the arteries are already full to the risk of apoplexy. Indeed this last accident has followed the administration of digitalis under these circumstances. The full artery, then, is a contra-indication, just as much as an empty artery is an indication for the administration of digitalis, whether the heart be diseased or not.

Digitalis is a diuretic, says another: "Whenever the bulk of urine rises then I know digitalis is doing good." Certainly, if a horse be yoked to a cart previously stationary, and after that the cart be seen moving away, it is a pretty acurate inference that the horse is drawing the cart. The bulk of urine, as Traube taught, is the index of arterial fullness. When the arteries are filled by the action of digitalis the bulk of urine is increased. The rise in the bulk of urine tells in the most unmistakeable manner that the action of the drug is filling the arteries. In dropsy, when the bulk of urine is low and the specific gravity is high, then digitalis is pre-eminently useful. When albuminuria is present from venous engorgement in heart failure, the administration of digitalis will often be followed by its disappearance. As the arteries are filled the veins are depleted: the albumen, which tells of venous congestion disappears as this state of the veins is relieved; as the arteries are filled the bulk of urine rises.

The great matter for the practitioner to remember about digitalis is, that it increases the energy of the ventricular contractions; and that the clinical indication for its administration is an empty artery. With such views before his mental vision the practitioner will rarely experience any difficulty in deciding when to give, or when to withhold the potent digitalis —potent for good or harm, according to the circumstances under which it is preescribed.

In cases of cerebral anemia digitalis may often be prescribed with advantage when it is desirable to raise the blood-pressure within the arteries.—*Canada Medical Record*, February, 1883.

A Simple Means of Checking Pulmonary Hemorrhage with Shawl Straps.—Dr. H. Holbrook Curtis gives,

in the *New York Medical Record*, a novel way of arresting pulmonary hemorrhage. Called in a case of emergency, Dr. Curtis purchased a pair of ordinary shawl-straps punched with holes a quarter of an inch apart, and braided three strands of drainage tubing, making two cords of as many feet long. He laid a folded napkin over each femoral vein just below the fold of the groin, and adjusted the straps above the thighs as high up as possible so that the buckles would be over the napkins. The straps were tightened enough to stop the venous return without interfering with the arterial supply of the extremities. Then the arms near the shoulders were bound by the rubber tubing. The hemorrhage was checked almost immediately, and in about five minutes the straps and tubing were loosened. This was no sooner accomplished than the patient complained of a great shock to "the sore place," and the bleeding commenced. The same procedure checked it as before. In about five minutes, the extremities becoming markedly cyanotic, the straps were loosened, a hole at a time, when no hemorrhage recurred. The shallow and difficult respiration was greatly relieved by keeping an arm and the opposite leg strapped. As soon as a member became cyanotic the strap was changed to the opposite side.—*Canada Medical Record*, February, 1883.

Ulcers—Their Treatment with Transplantation of Raw Meat. By Dr. R. Menger, San Antonio, Texas.—Having read several very interesting articles in the *Medical Record*, from Dr. C. H. Wilkinson, on the treatment of chronic ulcers, the latest by means of transplantation of antiseptic grafts, etc., I would respectfully ask a few lines space in the *Record* to communicate the following facts concerning the healing of ulcers with transplantation of muscular tissue. I have had full occasion to test the results of this treatment in three chronic cases at both the City and Charity Hospital, and especially at the County Poor-House Hospital.

The first case concerns an Irishman, aged about 50 years; general health tolerably good, subject occasionally to alcoholism. He had the misfortune to be bitten by a large centipede whilst camping out on the Pecos. Shortly after the bite, the man says he felt a very stinging pain all along the places where the centipede had crawled, i. e., along the lower right leg, commencing around the foot joint and extending up to the knee-joint, along the border of the tibia and fleshy parts. The whole leg soon swelled considerably, became inflamed, and in a few days the parts bitten became gangrenous. He came to San Antonio with an ugly ulcer, and was treated with good results by Dr. F. Herf, with a solution of nitrate of silver. The ulcer had cicatrized up to a small place when he left the hos-

pital. In town, however, he debauched freely in whisky, and had his leg exposed and neglected. Being a pauper by this time, he was again sent to the hospital, and came under my treatment. The same old ulcer, in its worst form, was now again to be seen, but larger than the first time. The treatment consisted chiefly in applying carbolized oil and ointment, and bandaging the leg. Solution of silver was also applied freely, as the first method would not suffice. But even with this, the ulcer cicatrized, but very slowly, and would not close after several months' treatment, under every possible care and precaution. I then concluded to try Reverden's method, but could not succeed in obtaining any skin from the patient, nor elsewhere. Twice, very fine slices of epidermis from the ear of a rabbit and the tongue of a duck were applied, but without the least signs of success.

The second case concerns a young man aged about 15 years, who came here from Austin with a partially cicatrized long wound along the edge of the tibia, and an ugly ulcer along these parts. He had been operated on by Dr. Cummings, in Austin, some months before, for necrosis of the tibia. If the boy had the ulcer already when he left Austin, I am not certain; but the fact is sure that he had a very large ulcer, involving nearly the whole surface of the tibia, when I saw him. This case was also treated by astringents, carbolized vaseline ointment and bandages; but the healing process progressed very slowly, and he laid up for weeks, with but very slight improvement of the ulcer.

In both of these cases I now tried the transplantation of raw meat as substitute for epithelial trasplantation, and the result was, to my surprise, very satisfactory. First the legs were well washed with carbolized water and soap, also the ulcer cleaned with warm carbolized water; then, fresh meat, freed from from all fibroid and tendrous tissue, was scraped off with a sharp knife and spread, in very thin layer, over the entire raw surface of the ulcer. After this, the ulcer and entire lower extremity were bandaged with carbolized bandages, having previously covered the ulcer with absorbent cotton, impregnated with fresh cod-liver oil. This was done every morning and renewed every evening.

The remarkable result of this treatment now, was that, in the evening and morning, when the ulcers of both patients were newly dressed, every particle of transplanted meat was entirely absorbed, and the ulcers themselves gained healthier granulations, and their dimension was diminished. The patients having laid up for a considerable length of time, the hospital managers were perfectly delighted to notice the visibly rapid improvement of the ulcers. The ulcer, in the first case, is now closed up to a small part, and that of the boy is also closing rapidly.

The efficiency and superiority of this treatment is based on the following facts:

1. It is very easy to apply, and a great deal easier to procure fresh, healthy raw meat than epidermis.

2. The process of granulation is stimulated to a great extent, and the ulcer heals with a healthy and solid cicatrix on the edges.

3. The probability of inheriting morbid tissue is a great deal lessened.—*Texas Medical and Surgical Record.*

THE USE OF IODOFORM IN THE TREATMENT OF DISEASES OF THE EYE.—By Dr. E. Fischer, of Graz. Translated by Dr. M. R. Richard.

Experiments were made from December, 1881, to May, 1882. The results for the most part correspond to those obtained by other experimentors. The applications were made partly in the form of powder (like calomel), partly in solution of almond oil, or in combination with gelatin (1:2). It was used in a great variety of diseases, also in operations (extraction of cataract, enucleation, extirpation, staphaloma, etc.)

The author sums up as follows:

1. That iodoform is well borne by most patients;

2. It is the most reliable remedy in scrofulous and trachomatous pannus;

3. As an antiseptic during operations, it is excellent;

4. It encourages granulations and speedy regeneration of the conical epthelium;

5. In dacrocystitis and dacryocystoblenorrhœa it is of the greatest worth;

6. In all other diseases included in his list, it was found to be either no better than the remedies heretofore used or, as in blenorrhœa neonatorum and trachoma, worse.

IODOFORM IN DISEASES OF THE EYE—Since Rava introduced the use of idoform for this purpose (1879), it has been found very useful in a great many diseases, but in *some*, as blenorrhœ neonatorum, it is of no use.

Dr. Kazaurow was so unfortunate as to have several cases of operations for cataract in which he could not extract the lense, luxation occurring, a result which heretofore always lead to severe inflammation of the iris and ciliary circle (iridocyclitis), and phthisis bulbi.

In the cases treated with iodoform no such evil effects arose, and sight remained. One patient could, with the use of convex glasses (No. 4), read 20–50; another counted fingers at 6 feet with the aid of convex glasses No. 3½.

Liquor arsenici bromati, recommended by Clemens, of Frankfurt, A. M., has been given in diabetes with good results by Békai in Budah-Pest. The dose is three drops of the liquor in thirty grams of water, to be taken in three doses during the twenty-four hours. The quantity should be increased one drop every three days, up to 6—10 drops daily.—*Deutsche Medizinal-Zeitung.*

The next annual meeting of the Association of American Medical Editors will be held in the City of Cleveland, Ohio, simultaneously with that of the American Medical Association, on June 5th and 6th, 1883.

The subject of the address to be delivered by the President, Dr. N. S. Davis, Chicago, is : "*The Present Status and Tendencies of the Medical Profession and American Journalism.*" A free discussion upon this important subject is invited, which will be open, not only to members, but to all physicians present. Dr. Marcy's address will be upon the subject of "*Journalism devoted to the Protection and Concentration of Medical and Surgical Science in Special Departments.*"

Syphilis Spread by a Midwife.—Much excitement was caused recently in Sheffield, England, by the trial of a midwife, on the ground that she had communicated syphilis to about thirty married women, and to two infants, while in the discharge of her professional duties.—*Medical Record.*

The New Orleans Medical and Surgical Journal, while endeavoring to reflect the true status of medicine and surgery at large, and working to convey to its readers the newest discoveries and the latest advances in both branches, desires at the same time to become recognized as the especial exponent of medical science in the South and Southwest. Communications from these quarters in regard to quarantine, contagious diseases, hygiene, sanitation, state medicine, peculiar forms of disease—everything germain to medicine, are earnestly asked for.

Unless under special conditions, such communications as are not used will not be returned. Matters relating to the Editorial Department should be addressed to Dr. Rudolph Matas, P. O. Drawer 282, New Orleans, La.

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Meteorological Summary—Februuary.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.190	55.5	62.3	East.	.....	Mean Barometer, 30.217.
2	30.176	67.1	90.0	S E.	.....	Highest Barometer, 30.682.
3	30 189	69 6	83.3	South	.....	Lowest Barometer, 29.891.
4	30.243	70.2	85.3	S. E	.....	Monthly Range of Barometer, 00.791.
5	30.290	60.3	86.7	North	.01	Mean Temperature, ——.
6	30.112	64.8	86.7	S. E·	.....	Highest Temperature, 80
7	30.109	67.7	79.0	South	.01	Lowest Temperature, 39.5.
8	30.297	56.3	70.3	N. E.	.....	Monthly range, ——
9	30.320	61.8	82.0	East.	....	Greatest daily range of Temperature,
10	30.189	68.1	78.0	South	.....	30.1.
11	30.092	71.6	73.7	S. W.	.....	Least daily range of Temperature,
12	30.219	67.5	82.7	East.	.....	10.0.
13	30.198	68.9	81.0	S. E.	.....	Mean of Maximum Temperature, 70.1.
14	30.049	71.6	81 7	South	*	Mean of Minimum Temperature 55.0.
15	29.984	71.7	80.3	S. E.	.....	Mean daily range of Temperature, 15.1.
16	30.012	74.5	80.7	South	.....	Prevailing Direction of Wind, S. E.
17	30.204	58.4	83.0	North	.63	Total movement of wind, 5736 miles.
18	30.391	45.9	71.3	North	.25	Highest Velocity of Wind and Direc-
19	30.380	50.7	61.7	North	.....	tion 24.
20	30.308	56.1	55.7	N. E.	.....	Number of Foggy Days, 0.
21	30.242	59.9	47.7	East.	.....	Number of Clear Days, 8.
22	30.059	63.6	68.7	S. E.	·02	Number of fair days, 10.
23	29.909	68.3	83.0	South	.02	No. of cloudy days on which no rain fell, 4
24	29.977	72.1	78.7	S. W.	.65	Total No. of days on which rain fell, 16
25	30.286	59.3	57.7	North	....	COMPARATIVE TEMPERATURE.
26	30.493	53.7	33.0	North	.....	1873..... 60.5 | 1878..... 55.5
27	30.608	51.7	33.0	North	....	1874..... 59.1 | 1879..... 55.8
28	30 553	54.6	40.0	East.	.....	1875..... 55.9 | 1880..... 60.4
..	.....	....	....	.....	.....	1876..... 59.0 | 1881..... 56 3
..	.....	....	....	.....	.....	1877..... 55.9 | 1882..... 62.0
..	.....	....	....	...	.....	COMPARATIVE PRECIPITATIONS.
						(Inches and Hundredths.)
Sums.	.....	....	....	.....	Tot.	1873..... 1.93 | 1878..... 3.50
Means	30.217	62.9	71.3	S. E.	1.59	1874..... 3.68 | 1879..... 2.13
						1875..... 13.85 | 1880..... 4.62
						1876..... 8.20 | 1881.....
						1877..... .98 | 1882..... 5.80

* Inappreciable.

M. HERMAN, *Pvt., Sig. Corps, U. S. A.*

Mortality in New Orleans from February 11th, 1883, to March 17th, 1883, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
February 17	0	7	31	21	14	147
February 24	0	2	13	40	9	144
March 3	0	3	12	27	4	124
March 10	0	6	22	24	12	145
March 17	0	9	21	56	9	172
Total	0	27	109	168	48	732

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

MAY, 1883.

ORIGINAL PAPERS.

Anniversary Address Delivered before the Orleans Parish Medical Society, on Friday, March 30th, 1883.

By THOMAS LAYTON, M. D.

Mr. President and Gentlemen: The mission of delivering an anniversary address is connected with responsibility. This fact dawns upon the mind, the very instant an attempt is made to commit one's thoughts to paper, in this connection; it increases in vividness upon further reflection, and the undertaking finally appears in such a light, as to render it a subject of serious embarrassment.

The person chosen to deliver the address is sensible of the compliment conveyed, and he would do his uttermost to return thanks therefor, by furnishing something which may be deemed worthy of attention.

But the difficulties are many, and anniversary orations have been plentiful; in fact, a survey of the field would tend to produce discouragement. Certain themes are threadbare. It would be a poor compliment to your intellects and to your reading, to annoy you with a tedious dissertation upon germs, bacteria and bacilli, to distress you with a report of what has been done and said elsewhere, to call up some dead issue, or to recite the progress of medicine and the collateral sciences. You have, of course, kept apace with all these topics, and with many more, which could be enumerated, and you know

where to find and consult the writings of masterly minds upon such matters, as a whole, and those of eminent specialists upon any particular question.

The field is, therefore, considerably restricted, and to your humble servant, this affords a certain amount of satisfaction, because he candidly admits his own incompetency, and also, because a recognition of the foregoing truisms, will permit him to express in very plain language, a few thoughts upon a subject whose importance cannot be overestimated. And these thoughts, it would seem cannot be particularly his own; they must be shared by all, who, from necessity or any other cause, make New Orleans their home. Before entering fairly into the subject, it should perhaps be said—and yet this should really not be necessary—that no offense is intended to any constituted authorities. The remarks suggesting themselves, are simply those which occur to the mind of a citizen interested in the prosperity of the city with which he is connected by ties of affection and business, and where he lives.

Without further preamble, therefore, it is proposed to enter at once upon a calm survey of certain circumstances which, of late, have occurred in our midst every year, towards the beginning of summer; allusion is of course made to the alarm excited with regard to yellow fever, and to the damaging effect abroad, which is created by the rumor of even a single case of that disease in this city. It is not necessary here, to recur to the pages of colonial history to ascertain at what period New Orleans was first visited by the scourge, or to discuss any of the theories which have been current, or which may still be entertained as to its local or exotic origin. One fact may be accepted as being universally agreed upon: given a season, during which New Orleans is perfectly healthy; given a vessel arriving at the mouth of the river, coming from an infected port and having, or not, yellow fever on board, it would be unpardonable folly, not to say criminal negligence, to allow such a vessel to come up to the city.

She must be stopped; she is stopped, and this constitutes quarantine. Now, quarantine implies the maximum of sanitary protection, combined with the minimum of interference

with business interests. In the past, it mattered little, as far as trade and commerce were concerned, whether yellow fever were present in New Orleans or not. The possibility of its occurrence was accepted as a matter of course, and it is not uninteresting to read of the changes which took place from time to time in the laws and regulations bearing upon quarantine. Those were the halcyon days; even murderous epidemics, apart from the sentiments of sympathy they doubtless excited in distant communities, scarcely created a ripple of excitement, outside of New Orleans. There came an awakening, however, and a terrible one it was. The clouds were thickening, and when the storm burst in 1878, its ravages were disastrous. The panic was universal, reason was gone, and the instinct of self-preservation was uppermost; New Orleans was the pest house of the nation. It is foreign to the purpose of this survey to investigate the cause of this revulsion of feeling, of this sudden display of fear substituting itself for previous and relative unconcern.

New Orleans had to deal with the unpalatable fact, that in the future, she was to be an object of suspicion, not only to the people of Louisiana, but to the adjoining States, to the entire Mississippi valley, and to the country at large.

Criminations were plentiful; they did no good as to the past, but they showed a grim determination on the part of our neighbors with regard to the future.

The loss of life in 1878, as is well known, was small in proportion to the death rate in previous epidemics; but the damages resulting to the business community of this city, were exceedingly difficult to estimate, although they were approximately given by official experts at from $12- to $15,000,000, and by the late Dr. Samuel Choppin in his Annual Report as President of the State Board of Health, as reaching the sum of about twelve millions of dollars, the Report saying that: "In this estimate no account is made of depreciation of property and future damage to the commercial prosperity of New Orleans, for they will depend greatly on the means hereafte adopted to prevent a recurrence of a similar visitation."

When the epidemic came to a close, the determination was general that some means must be adopted to "prevent the recurrence of a similar visitation."

A prominent evidence of this determination was the foundation of an association composed of intelligent men, recruited from various pursuits in life. They had, many of them at least, seen the fell destroyer devastating their own households, and thus, from the standpoint of affection they, in common with the entire population, were desirous of preventing another similar visitation. And they had suffered grievous pecuniary losses also. Therefore, a volunteer auxiliary sanitary association was organized, with the motto: "Public health is public wealth." The labors of this association have been great, and fruitful of good results.

Following close upon the epidemic of 1878, came the Act of Congress, approved March 3d, 1879, under whose provisions the National Board of Health was created. And after, as before the epidemic, the State Board of Health continued its existence.

It is, unfortunately, but too well known that difficulties began to arise in 1880; there was at first want of concert of action between the different bodies above mentioned; this deepened, the lack of harmony became more evident, and finally the rupture was complete between the State and National Boards of Health.

Without any spirit of criticism, and without any partisan feeling whatsoever, the average citizen holds that this disagreement is a mistake. He is made to suffer by it; he must be the loser; he wonders if such a thing as "Peace on earth to men of good will" is mere cant.

He cares little for personal quarrels, in fact he is in no humor for these; they interfere with his business, with the living he must make for his family; no wonder then that he grows restive.

He sees, and the fact cannot be concealed, that the authority of the State Board of Health, is, to a great extent purely nominal, for it has practically no power to enforce its jurisdiction outside of the parish of Orleans. He cannot tell when

the next epidemic of yellow fever may occur; he is very willing to hope that this may be indefinitely postponed, but no amount of sophistry will induce him to believe that any one knows any more on this subject than he does himself.

He sees that a great deal of valuable sanitary work has been done since 1878. This he appreciates, for he realizes that it is work carried on in the right direction; he has no objection to aid in this work to the extent of his pecuniary ability; he only wishes more of it were done, for he understands that much is still necessary, and that although notable results have been achieved in the way of sanitation, still no man in his senses would be so bold as to deny that among the possibilities, is the exceedingly annoying one of the liability to an epidemic, perhaps during the very summer, whose advent is so rapidly approaching. He is perfectly aware of what will happen should so great a calamity as an epidemic again befall this city. He cannot close his eyes to the fact that it will be very difficult, not to say impossible, to allay the feelings of suspicion which have been engendered. Communities outside of New Orleans, trust to themselves and their own emissaries, or agents, in regard to the obtaining of information concerning early or suspicious cases; this it is absolutely impossible to prevent. Everyone, who has any experience in yellow fever, is fully aware of the differences in opinion displayed, even by those who profess to be experts, with regard to the diagnosis of early cases of the disease. And owing to the difficulties and obscurities surrounding such diagnosis, it would appear to be the custom, when these differences of opinion exist, to give this city the benefit of the doubt. Now, while this course is proper enough, and while it would be entirely commendable, were New Orleans the only party in interest, it is, however, undeniably true, that outside communities, even in our own State, have a great deal to say in this matter. And it is unfortunately, the fact, also, that for reasons which need not be discussed here, and which have originated in the past, such communities repose but a moderate degree of confidence in any statement, official or other, emanating from this city, with reference to yellow fever. It would, therefore, appear to be

the part of wisdom to abandon in the future, the course mentioned above, and this would seem to be the more imperatively demanded owing to the absolute necessity, for our own protection, of regaining the entire confidence of our neighbors. With the experience of the past, and owing to the horror excited by the very name of yellow fever, every citizen of New Orleans is fully aware that should there be a certain number of cases of the disease in our midst, there is not a village in Louisiana, no matter how insignificant, in whose power it does not lie to quarantine against the metropolis, despite all that may be said to the contrary by any authority, official or unofficial, in the State: whether or not, quarantine or interdiction will be enforced, is a matter which rests entirely with the coolness and humanity of every social agglomeration outside the precincts of New Orleans. Unfortunately, past experience teaches the uncertainty of trusting to there being many cool heads or much humanity when the phantom, yellow fever, is reported as having resumed its orgies. The memories of 1878 are still too fresh to permit the entertaining of any doubts on this point.

What is true of the want of power possessed by the State Board of Health, as far as communities in Louisiana, outside of this city are concerned, is immeasurably more so when it becomes a question of the States adjoining our own. And not only these, but the population of the entire Mississippi valley, and of the whole country, are factors which must be taken into account. If they be not entirely satisfied, they will draw the line themselves, leaving no possible loop-hole for escape. Thus, every possible reason would seem to exist for the pursuance of a policy of harmony.

We in Louisiana cannot dictate to our neighbor in Texas, Mississippi, Arkansas and other States more or less remote. Haughtiness and dictation will avail us nothing: we require their good will. Our own interests demand that since quarantine cannot be dispensed with, we should at least do all in our power to obtain the minimum of interference with our business interests; but, for this we must be willing to make certain concessions to public opinion, or else, human nature, re-

vealing itself in our neighbors, will be extremely apt to enforce what they may regard as a maximum of sanitary protection for themselves, regardless of whatever interests may thereby suffer outside of their own territorial limits.

Turning now to another subject, which is also of interest to this State, and referring to the attempted introduction into Louisiana some few years ago of the eucalyptus tree, it will be remembered that the eucalyptus globulus, or blue gum, was the variety selected for the experiment. The result was not satisfactory, for although the tender plants grew luxuriantly, still they were gradually destroyed each winter, until, after the lapse of a few seasons, all had perished, and their attempted introduction into the State was practically abandoned. This is to be regretted in view of the peculiar properties enjoyed by this genus of plants. About two years ago (1) a scientific journal reproduced an interesting article entitled the "Eucalyptus in the Roman Campagna." This article gives certain botanical features and geographical details, alluding especially to the wonderful results obtained in the Roman Campagna, at and around the Trappist Monastery of *San Paolo alle Tre Fontane.* It is stated that this locality was entirely deserted before 1868. The monk who was on duty at the Abbey in day time was compelled to sleep in Rome. The place attained so evil a reputation that it was locally known as "the tomb." There are now twenty-nine brothers attached to the monastery, all of whom sleep there each night. This gratifying change is due entirely to the cultivation of different varieties of the eucalyptus by the monks, in which undertaking they have the countenance of the government, which, we learn, has also extended the cultivation of the tree to other sections of the country, with like satisfactory results. The beneficial action of the eucalypt is explained by the enormous quantity of water which the plant can absorb from the soil. It has been demonstrated that a square yard, weighing $2\frac{3}{4}$ pounds, of the leaves of the globulus variety will exhale into the atmosphere during twelve hours, four pints of water; that

(1) Popular Science Monthly, May, 1881, re-produced from Chamber's Journal. Article condensed and arranged. T. L.

is, a given weight of the leaves can transfer from the soil to the atmosphere nearly twice that weight of water. And under the influence of wind and sunshine, the evaporation of water would be equal to four or five times the weight of the leaves. It is now intelligible that if such an enormous quantity of water can be transferred from earth to air, it may be possible that an atmosphere which, without such aid, would be laden with malarious exhalations, may be rendered pure by this process of leaf distillation; the putrescible constituents of the stagnant water are absorbed by the roots and become part of the vegetable tissue of the tree."

It is also claimed that "the beneficial action of the eucalypt is partly due to the secretion by the leaves of an aromatic essential oil, a species of turpentine. Oils of this class are rapidly oxidized under the combined action of air and moisture, large quantities of peroxide of hydrogen being produced as a result of this oxidation. The peroxide of hydrogen being a very valuable disinfectant, owing to its being one of the most potent oxidizers known, the conclusion can hardly be avoided that the oxygen-carrying property of the oil is an important element in the malaria-destroying power of the germs." The French government have cultivated the eucalyptus on a very extensive scale in Algeria, with the result of completely reclaiming certain districts, which were previously valueless, because uninhabitable. The article quoted above goes on to recite the fact that "it seems to be well proved that most of the species will survive a winter in which the temperature does not fall lower than 25° F." This should certainly be encouraging for the cultivation of the tree in Louisiana, and even should another trial with the variety *globulus* fail, conducted though it may be with perfect care and system, which cannot be said to have obtained in the experiment already made in this city, botanists know that there are many varities of the eucalyptus, some of which may be better suited to this climate than the globulus.

The speaker has at present under observation a specimen of the *eucalyptus resinifera*, which has been recommended to him as being likely to succeed in this soil. The above named

variety has been growing in the open air for a year. It is about seven feet in height, and it has run up about five feet, since being transferred from the pot in which it had been planted from the seed. The development of this species is said to be slower than that of the *globulus;* and the tree itself is different in certain of its characteristics.

Gentlemen, the occasion which unites us this evening is one of peculiar significance, for although anniversary celebrations are usually prompt enough in their recurrence, still, in the history of this Society, each annual meeting has been fraught with greater meaning than is generally the case in organizations of this kind. The originators of this body, constructed in the hope that their work would prove lasting: they did not expect their task to be of easy achievement. And still, were it not for the good fight, made by a small number of its original members, the entire structure would ere this have disappeared. These members are deserving of the highest commendation, and it would be most pleasing to name each individual who has thus deserved our gratitude and esteem, were it not that such mention would appear fulsome, and would annoy those to whom it would be addressed. Last year, on a similar occasion, we were reminded that perhaps each of us was in a measure responsible for the seeming blight which had overtaken our Society. To the credit of the members generally, be it said, that the reproach, then delicately conveyed, was cast out into good soil, for during the last twelve months there has been a revival of interest, manifested by better attendance at the meetings and the addition to the roll, of several new and highly respected names. It would seem as though we might hope that, having successfully overcome the trials which encompassed the first few years of its existence, the Society now enjoys the assurance that its work has been appreciated, and that it may count upon the support of the profession in this city to promote its future development.

And this work has been of great importance, for it sowed the seed from which medical men may, in course of time, fairly expect to receive in this State the legal consideration to which they are justly entitled. Allusion is made of course, to the in-

troduction into the new Constitution of Louisiana of that *Article*, with which you are familiar, and which, even if not entirely satisfactory, is an entering wedge, already making its presence felt, as evinced by the passage, at the last Session of our General Assembly, of Act 31, relative to the registration of medical practitioners.

Our Society has also taken an active interest in the formation and maintenance of the State Medical Society. It is difficult, and perhaps not necessary, to analyze the causes which have of late militated against this last organization. Surely all should be willing to lend a helping hand where the interests of all are concerned, and the most casual glance at the position of legitimate independence occupied by the medical profession in the State of Alabama, for instance, should convince every one, not only of the feasibility of obtaining similar results in Louisiana, but also of the duty incumbent upon each physician in this State to put his shoulder to the wheel and labor in the common cause.

This has been the mission of the Orleans Parish Medical Society in the past: how well it has maintained its self-imposed trust it were better to let others tell. Certainly there can be no impropriety in resolving mentally that we will continue to meet annually, and that each year will testify to some advance made, for it certainly lies in the power of each one of us not to recede professionally.

Some Debatable Points in Small-Pox and Vaccination. I. Origin of Small-Pox. II. Comparative Merits of Bovine and Humanized Vaccine Virus. III. Compulsory Vaccination.

By S. S. Herrick, M. D.,
Secy. Board of Health, State of Louisiana.

Read before the New Orleans Medical and Surgical Association; also before the Louisiana State Medical Society, April, 1883.

I. The early history of small-pox is involved in the obscurity which attaches to all matters dating back to a remote antiquity. That it did not originate in Europe may be regarded as certain. Sir Thomas Watson declares that it was unknown

there till the beginning of the 8th century; while Gregory of Tours, about A. D. 581, first describes a disease which prevailed around the shores of the Mediterranean, and answers well to small-pox as now existing. But it has been traced by Mr Moore, in his history of the disease, to a period more than a thousand years B. C., in China and Hindostan; and it is probable that it existed as a distinct disease at a much earlier date.

Whether small-pox differentiated from the other exanthemata at an immensely distant period, is a question which cannot be decided by history or tradition. We might borrow from the conclusions of modern biologists, who regard the human race as a variation or descent from an earlier and more simple type; and those who accept the Darwinian doctrine of variation and the gradual formation of new species, would find no difficulty in accounting for measles, scarlatina and small-pox as modifications of an earlier exanthem, to which the remote progenitor of both the bimanous and quadrumanous species was subjected, before either had branched off from a common type.

This is, of course, conjectural, but it is found that monkeys in the wild state are sometimes affected with small-pox, when the disease is prevailing as an epidemic among the human population; but they must be far less liable to the infection than human beings, under ordinary circumstances. In fact it is doubtful if they ever contract it through the atmosphere.

With sheep the severest symptoms are found in the nares, and it seems probable that the infection is received into the nostrils of the animals, while grazing upon spots where scabs have fallen from persons recovering from the disease. Horses have a form localized to a portion of the ankle, just above the hoof, and seem less susceptible to general symptoms than sheep and cattle. The structure of their teeth does not admit of grazing so close to the ground as is usual with sheep, and this might account for the escape of the nasal passages; but abrasions of the skin about the fetlock are occasioned by rapid movements and the frequent habit of striking the forward foot by the hinder. In this way easy access is allowed to infection,

if encountered in the grass or on soft ground, but particularly when the animals are shod by a farrier just convalescing from small-pox.

It is easy to understand why cows should, oftener than other animals, become subject to variolous disease, from being milked by those actually or recently affected by it. The fact that milch cows alone contract the malady is quite in harmony with this mode of propagation. A single instance related by Aitken, of the infection of a number of young heifers, which frequented a spot of ground that had become infected through articles of bedding spread there for several successive nights, would indicate a bare possibility of infection through the nasal mucous membranes; but it is questionable if this could take place in a condition of perfect integrity of the epithelium.

Though it is certain that our domestic animals may be more or less successfully inoculated with the variolous poison, there is no good evidence that they absorb it through the atmosphere, like mankind. Their susceptibility is far inferior, and its communication from one animal to another, without the direct intervention of man, must be excessively rare. While some have conjectured that small-pox originated among the lower animals, and from them spread to mankind, in my judgment the evidence tends to the opposite conclusion.

As to the spontaneous occurrence of vaccinia in cows, it is a supposition quite unnecessary and discordant with our knowledge of its contagious character. Many diseases were formerly referred to spontaneous origin, which are now recognized as strictly infectious; scarlatina and typhoid fever being among the most lately abandoned miracles of pathology. It is significant that the so-called spontaneous occurrence of cow-pox is now exceedingly rare, as compared with its frequency when small-pox was generally prevalent, previous to the discovery of artificial vaccination by Jenner. The explanation is that a milker capable of communicating the affection is now much less common.

As the human variolous infection can be successfully implanted in various domestic animals, and as its apparently spontaneous origin among them may be explained by their ac-

cidental inoculation, it is unnecessary to invoke a creative act for an occasional example. Moreover, as mankind are certainly far more susceptible to the infection than the lower animals, this is additional evidence of its human origin.

II. I purpose now to make some remarks upon the comparative merits of bovine and humanized vaccine virus, and commence with the observation that there are fashions in medicine as well as in dress, and that I regard the present popular and professional demand for the animal virus as a fashion merely. Several reasons are given for this choice, but only two are of any consequence. It is alleged that a large supply of virus is much more easily obtained by animal vaccination than by the old process of saving the human lymph and crusts; and it is asserted that the bovine has the advantage of absolute inability to transmit syphilis. Both these claims are granted. Their value will first be considered, and afterwards the disadvantages of the animal product.

The question of supply is a new issue, discovered by those who make a business of vaccine, either as manufacturers or dealers. The difficulty of obtaining a sufficient amount of humanized virus has at times been severely felt, especially at the South during the civil war; but forethought and good management can overcome it, as they did in the early history of vaccination, when small-pox was vastly more prevalent than it is now, and the need of preventive measures was proportionately greater.

The risk of syphilitic infection by the use of humanized virus, considered in a mathematical aspect, is infinitessimally small; but it is important in illustrating a curious trait of human character—the excessive contagiousness of an erroneous idea. It is remarkable that the "catching" property of the bovine idea upon the human mind, is immensely superior to that of the bovine virus upon the body. This is entirely dependent on different degrees of susceptibility, and it is to be observed, that acute susceptibility to new ideas naturally leads to credulity and folly.

To consider the matter numerically, we may say that more than 50,000,000 of vaccinations and revacinations have been made in Europe and America during the last ten years, nearly all of which for the first five years, and, perhaps, half during the last five, have been made with humanized virus. During this time, no well authenticated case of vaccinal syphilis has come to light. But admitting one chance in 10,000,000, how insignificant is the peril! The danger of being struck by lightning is greater. When we regard the risks which people voluntarily and constantly assume in their personal and domestic hygiene, the tyranny of a dominant error becomes apparent.

But, suppose the danger of syphilitic infection through vaccination were an appreciable quantity, the recklessness of mankind in unlawful sexual indulgence and their excessive caution in means of protection from small-pox indicate a determination (if they reason at all in the matter) not to miss any chance, however small, for contracting syphilis in the usual way. Be it understood here that this deduction is drawn from the conduct of mankind in the aggregate, and its logical correctness is apparent, however absurd it may be as a practical proposition.

The disadvantages of bovine virus are two-fold: it is liable to be very severe in action, and beyond dispute it is far less certain and regular than the human lymph or crust. Its severity I am willing to waive as a minor consideration, but I insist that its uncertainty renders it untrustworthy in the presence of small-pox, and is a fatal objection.

In the case of infants, when the disease is not threatening, there is no capital fault with the bovine virus, for repeated trials may be made at leisure; yet I am sure that the patience of neither physician nor client would bear such a strain in any other procedure of our medical art. But when small-pox is present, reason demands a protection that is sure, as well as harmless; and some risk on the latter ground might be taken to secure the former.

In case of secondary vaccination, our object is to insure the safety of the subject from small-pox. With fresh humanized lymph we can pledge this with almost absolute certainty; but

with the bovine virus we prove nothing. It is fair to state that the average success of our practitioners with this agent in primary vaccinations, has not been better than once in five trials—probably less. In my judgment, such work in the face of small-pox is gambling at desperate odds, with human life at stake.

But the uncertainty of bovine virus is not merely its aptness to prove a total failure: it is liable to great delay in action and to the production or spurious sores, which may be mistaken for genuine vaccine effects. Occasionally we find an interval, varying from two to four weeks, between vaccination and its first manifestation. Such tardiness involves much greater risk of the intervention of small-pox than the danger of contracting syphilis from humanized virus. Many of us have observed abnormalities in the sores following bovine vaccination. They deviate from the regular stages classed as "typical," and are not protective, as proved by successful trials subsequently. An occasional manifestation is an ecchymosis, which remains until its contents are discharged by accident or design. Still, no matter what may be the failures and mishaps of the bovine virus, the public just now are so possessed by the delusion, that most physicians feel themselves compelled to assent, knowing that all bad results will be excused with the one, and none with the other agent.

Much is said, especially by the laity, of danger of inoculating scrofula and tuberculosis by the use of humanized vaccine, but anything like positive evidence is wanting. Suppose it to be true, we know that horned cattle are subject to tubercular diseases, and we should have less confidence in the animal vaccinifer than in the human, from greater difficulty in tracing ancestry; and still more from the fact that the propagation of bovine virus is a *trade* in the hands of strangers hundreds of miles distant from their customers.

It may be true that the human mortality from scrofulous and tubercular diseases is now somewhat larger than it was 100 years ago; but it must be remembered that one-tenth of the gross mortality at that time was due to small-pox, which was naturally most fatal with those laboring under such a diathesis. The explanation is, that more than one-tenth of

these weaklings must have died young of small-pox; and a fair inference is, that vaccination, in any form, is disconnected with these taints, though it is probable that an attack of small-pox might render active a predisposition of this sort.

It may be true, as is claimed, that bovine virus is more successful in Northern communities than here. Why this should be so, or is so, perhaps could not be answered correctly. In addressing physicians of New Orleans, and in behalf of our own public, I recognize certain facts, and I find the testimony from Mobile, and from many localities in Louisiana, concurrent to the unsatisfactory results of the animal vaccine. Last year I had frequent applications from the country for this virus; this season the principal demand is for human crusts. I find also that the physicians of this city are returning to the old method of vaccination, and are calling on me for supplies of the home product, in preference to the bovine commodity.

It is possible that our Southern climate has a deteriorating effect on animal vaccine, though why on this, and not on the human virus, I cannot even conjecture. It is certain, however, that the animal virus of Dr. Zayas, who propogated it successfully on heifers in our presence a few years ago, and the experiments at Baton Rouge last season, gave about the same results upon human beings as our past and present trials of the Northern product.

But it cannot be denied that the business of a vaccine farm offers abundant opportunities and temptations for fraud. To what extent the commodity is counterfeited or adulterated, I venture not to guess. Practically, we know that there is an ethical distinction between a profession and a trade, and it is questionable whether the management of a vaccine farm by a medical man would make the business a profession. Suppose, for illustration, one of our number were to become a horse-trader, I suspect that he would find his professional ethics somewhat out of place, and would fail in the business, unless he followed the custom of his calling.

This, however, we know: it has always been customary among physicians to exercise the utmost caution in the selection of human virus from suitable subjects, and to give away

none but what they would be willing to use themselves. Now, in this matter, as in all others that concern our social relations, it is necessary to exercise a degree of confidence in our fellow-beings. Is it reasonable to trust strangers a thousand miles away, whom we have never seen, and do not expect to see, many of them not medical men at all, in preference to trusting each other at home? Are the physicians of New Orleans, are the members of this Association, prepared to testify by acts which no words can explain away, that they distrust each other, and must give strangers the preference? For myself, I am glad to remember the time when we had confidence in each other's judgment and integrity, and could exchange vaccine without fear or suspicion; and, somehow, I have belief that the old custom will revive.

WP.

I am satisfied that many of you have already reached the same general conclusions as myself on this question, and that you use the commercial vaccine only in deference to the demands of your clients. But this is a serious matter, for it deeply concerns the safety of those who confide their lives and health to our keeping. A regular medical adviser has the right to ask his clients to trust his judgment rather than their own, and he should insist upon it where failure is so fraught with danger.

Generally our profession have been prompt to resent any intrusion of a commercial character into their professional relations with their patients. The trade feature of cundurango and Chian turpentine excited disgust and brought their advocates into discredit; but these frauds were damaging only to the pockets of their victims, while a misplaced confidence in untrustworthy vaccine may result in death or disfigurement from a strictly preventable disease. Seriously, I think it is high time for us to take this matter into our hands, and refuse longer to be manipulated by those who fabricate and trade in vaccine virus for their own gain, for our disappointment and to the peril of the public.

III. The protection of the entire population from small-pox by means of vaccination is a desideratum acknowleged by in-

telligent people almost without exception, and a legal enactment to make the practice compulsory is regarded by many as the only thing needed to bring about so beneficial a result. The success of such legislation in the most civilized countries of the old world is adduced as proof of its applicability to this country, but without recognition of an insuperable obstacle in all the States of the Union, with possibly a single exception.

This plain principle is overlooked by the advocates of compulsory vaccination: to render effective any general requirement of a population, it is necessary that all those on whom it is imposed should be enrolled, so as to be found when wanted. Without a complete record of births it is impossible to take cognizance of all the young children, so as to have them vaccinated at the proper age. It is therefore clear that no compulsory law could reach all young children in a community where the registration of births is not compulsory and fully carried out.

There is a law providing for registration of vital statistics in Louisiana, but its application is made optional in all the parishes except Orleans. Nevertheless in Orleans parish, though a fine of $50 is the penalty for neglect to register a birth, not more than one-third of the births have ever been recorded.

There is no good reason to suppose that a compulsory vaccination law would be more acceptable to the mass of our people; while under the present plan much more than one-third of the children are vaccinated.

The connection between enrollment and enforcement of the law is illustrated in the case of the children of New Orleans, all of whom are required to give evidence of successful vaccination before admission to the public schools. To this extent compulsory vaccination in our city is a success, and the same plan might be extended throughout the State.

One of the greatest benefits of a complete registration of vital statistics is the facility afforded by it for enforced vaccination of the entire population and consequent control over such a preventable disease as small-pox. It is clear, however, that the people of Louisiana have not reached such a stage of civilization as to appreciate either, and that an attempt to

carry them out forcibly would probably meet the passive resistance of one-third of our people, the violent opposition of another third, the unwilling compliance of most of the remaining third, and cheerful compliance by the small fraction comprising the intelligent and law-abiding class. I am therefore clearly of opinion that the idea of general compulsory vaccination in Louisiana is visionary and impracticable.

Laceration of the Cervix Uteri, its Causes, Pathology Diagnosis and Treatment.

By D. M. CLAY, M. D.

(Read before the State Medical Society,)

This important lesion with its many serious effects on the health and happiness of women, is but little understood, or appreciated by the profession at large. It would be almost impossible for one to overrate the importance of this subject, especially the results of proper treatment.

Nor is this all, it appears really strange, that some therapeutic measures have not been suggested and adopted for its cure, since Simpson and Roser, especially the latter, described it accurately many years ago, and even went so far as to say that such a condition of the mucous membrane was incurable.

It remained for our own countryman, Dr. Emmet, of New York, to recognize this lesion and suggest surgical measures for its cure, comparatively painless and safe. The frequency of occurrence of these lesions naturally drew the attention of observers to the probable or possible causes, and many were surprised to find how few occurred in "meddlesome midwifery," or quick labors of forceps cases. It is quite true that lacerations follow more frequently from the application of the long forceps, than from any other instrumental interference, the bare fact of this instrument being required, at all, is an evidence of inertia of the uterus or unyielding rigidity of the cervix. It has been found by observers that lacerations rarely occur in ordinary forceps cases, more especially when the instrument is used in-

telligently and at the proper time. Nor is it the case with rapid births, the very time one would expect this accident to occur. The causes of these lacerations are due in a great measure to maternal and fœtal developments; thus in breech presentations where it is often necessary to expedite the passage of the after coming head, through an imperfectly dilated cervix, rupture often occurs. The ill advised administration of oxytoccic agents frequently results in disastrous consequences. Criminal abortion even when performed at an early period, often leaves behind an extensive laceration indicating a period of shame.

Again the position and size of the fœtus contributes a portion to lacerations; thus it is supposed by some that the cause of laceration occurring more frequently on the left side is due to the first cranial position, the left occipito cotyloid. The points of greatest danger in cervical rupture are, according to Fromel, at the internal os, due doubtless to a temporary thinning of the walls, and the next the external os, terminating in a free extremity and unprotected on all sides. As was stated before, the rupture occurs much more frequently on the left than on the right side, as high as 26 per cent. of all cases thus far observed.

The next to this in frequency of occurence is the bilateral, that is, when both sides of the cervix are torn through simultaneously. After the bilateral accidents, the right side suffers next in proportion, and lastly the anterior and posterior lips, which as a rule give but litte trouble.

Pathological changes occuring in the cervix of multiparæ advanced in child bearing, such as progressive degeneration of the tissues, especially the muscular, predispose to this accident. Areola hyperplasia, or excessive connective tissue proliferation, of the walls of the cervix, binding, or as it were, matting the parts together renders them non-distensible and thus more liable to rupture. Prolongation of labor, the early escape of the amniotic liquor, impingement of the child's head on the anterior cervical lip pressed against the pelvis, producing a dryness of, and consequent œdema of the parts, destroying elasticity, predispose to sloughing and rupture.

Softening of the cervix, due to the vital changes going

on in the blood supply to both uterus and embryo, may be carried on to such an extent, as to destroy or greatly impair the textural changes necessary for complete involution, and thus the parts become weakened and a solution of continuity ensues. The pathological condition of the uterus after lacerations have occurred is sub-involution, which prevents a reparative process from being inaugurated. Soon after the laceration has occurred, the cervix increases in size from congestion, infiltration and hyperplasia, conditions necessary for the production of cystic degeneration of the glands and follicles, so thickly disseminated over the mucous surface in this situation. This condition of infiltration, connected with excessive connective tissue proliferation, soon involves other important structures, such as the peritoneum; and the ligaments are then put upon the stretch, resulting in displacements and pelvic cellulitis and peritonitis. At this juncture the swollen mucous membrane, possessing all the elements of degeneration, begins slowly to protrude in the direction where least resistance is offered, and this process is continued until there is complete eversion. Owing to the increased weight of the uterus, due to an arrest of involution, it begins to sink down on the posterior wall of the vagina, and catches, as it were, the posterior lip of the cervix, whilst the anterior is allowed to follow the axis of the vagina, thus causing a permanent separation of the two lips.

When this inflammatory process extends to the adjacent structures, binding them down in an indurated mass, Dr. Emmet has aptly compared the position of the uterus to a tripod, with one of its legs shortened or tilted up. The entire clinical bearing of this subject teaches us that involution of the uterus is impossible, and that no reparative process can be established and maintained.

The mucous membrane of the cervix, after eversion has been established, becomes studded with numerous cysts, feeling like small shot beneath the surface, forming and reforming at the expense of the normal tissues; then bursting, discharging an ichorous muco-purulent fluid into the vagina, constituting a leucorrhœa, inordinate in quantity, irritating in charac-

ter, and of a nature to baffle the best directed efforts of the practitioner. The bursting of the numerous follicles form so many extra secreting surfaces; nor is this all, the process extends to the glands of Naboth, which undergo similar degeneration and increases the complication manifold. It has been ascertained by actual observation, that these lacerations, after numerous applications of sundry powerful agents, such as astringents, caustics, escharotics, etc., etc., under the erroneous impression that the operator had to deal with simply an erosion or ulceration of the os, were far more liable to be attacked by malignant disease, especially epithelioma. The symptoms of this accident are such as most practitioners of limited experience have no doubt observed. The rational signs are more or less vague, in fact, common to most uterine affections, yet it is well to remember that by putting them all together much valuable information may be obtained. The patient, of course, has a back ache and pain in the loins; but in this instance there is a constant "bearing down" as if a heavy weight was pressing constantly, in the direction of the vaginal axis; which in reality is true, the weight being represented by a uterus in a stage of sub-involution. Discomfort in locomotion, leucorrhœa, dyspareunia or painful coition, hemorrhage after intercourse, neuralgia of the cervix, are symptoms well calculated to arouse suspicion and should at once cause us to institute a most thorough examination.

This examination should always be made by a Sims' speculem, and the position of the patient, that of the genu-pectoral or semi-prone. "The cervix being well exposed to view, and should laceration exist, it will, for the moment be completely obscured by hyperplasia, eversion of the endometrium, cystic degeneration of the glands, areolar hyperplasia of both lips of the tear," and exuberant granulation of a degenerative nature.

To ascertain correctly the presence, as well as the location and the extent of the lacerations, it will be necessary to use two tenacula, one in each hand; fix one of the tenacula in the apex of the anterior, the other in a similar position in the posterior lip, then make gentle traction, and as they come into

contact, the normal shape of this part will come into view, and will at once be recognized. By adopting this plan the extended endometrium will be propped back into proper position and the lips of the cervix glide over it, which at once establishes the normal contour of the cervix, and gives an idea of the extent of the operation.

The only abnormal processes requiring a differential diagnosis from lacerations are, "simple hyperplasia or hypertrophy, granular and cystic degeneration, and lastly, malignant disease. In speaking of the important results obtained, by the discovery and elucidation of this subject, I cannot do better than quote the language of the distinguished gyæncologist, Prof. T. Gaillard Thomas. He says: "Nothing more triumphantly displays the value of Emmet's contribution to gynæcology in connection with cervical lacerations than a full exhibit of the evils which result from that condition. Its ordinary consequences are chronic peri-uterine cellulitis, epithelioma, sub-involution of a part or the whole of the uterus, sterility, menstrual disorders, cervical endometritis, granular and cystic degeneration, fungosities of the endometrium, neuralgia of cervix, dyspareunia, tendency to abortion, uterine displacements."

There is no part of a woman so subject to cancer as the uterus, and no part of the uterus so liable to it as the mucous membrane of the cervix, and during a period of textural changes the development of malignancy is almost assured.

The treatment of lacerations of the cervix consist in approximating and bringing about a union of the surfaces, and the question, very naturally, arises, under what circumstances should operative measures be resorted to. It is agreed by those who have investigated this subject, that when the uterus remains enlarged, or in a state of sub-involution, a persistent and irritating leucorrhœa or neuralgia exists, an operation is absolutely called for. It is customary in all surgical procedures, for surgeons to get their patients, just before operating, in the best possible sanitary condition; and operating for the cure of lacerations of the cervix, forms no part of an exception to this rule; on the con-

trary, it requires the most scrupulous care and attention on the part of the operator, to assure himself in the most positive manner that all the preparatory measures have been carried out, and special results obtained. It is important for him to remember that he is about to attack parts slumbering with all the latent elements of a quick and fearful inflammation, such as pelvic cellulitis and peritonitis, metritis and probable abscess; but by patient and thorough preparation, the operation is sure to be attended by the happiest results and is almost free from danger. The preparatory treatment consists in large hot water vaginal injections. They must be used once or twice a day, the water should be as hot as can be borne by the hand, and the quantity not less than one or two gallons. A Davidson's syringe will do, but what is far superior and better is the fountain; the patient should occupy the recumbent position, with a large bed pan placed beneath the hips. This daily injection should be continued so long as there is the slightest degree of tenderness evinced by the patient, pressure being made by the finger in the vagina, or over the hypogastric region, or in the neighborhood of the broad ligaments and ovaries. This treatment can be greatly facilitated by the application of blisters, or an ointment composed of iodide of potassium, mercury and ext. belladonna, smeared freely over the integuments of the pelvis; this should be continued until pustulation occurs. While these measures are being carried out, a proper and well fitting pessary should be applied and worn constantly, so as to press the flaps gently together, and at the same time support the uterus, thus relieving the ligaments and vagina of a super-incumbent weight, and allowing a free circulation to establish reparative action and ameliorate morbid processes. The pessary we prefer to all others is the Gehring, as yielding the best results and producing less pain. If the pessary produces pain and otherwise discommodes the patient, it is better to remove it at once, and substitute therefor pledgets of damp cotton; one inserted in the cul de sac back of the posterior lip, the other occupying a similar position in front. These pledgets of cotton should, under no circumstances, be allowed to remain longer than forty-eight

hours, on account of becoming exceedingly offensive, with a possibility of infection. Whatever pessary or contrivance be selected for the support of the uterus, it must be remembered that the organ should be left in a state of anteversion, which facilitates coaptation of the parts, and the best possible position for a free and unretarded circulation of the blood. After this treatment has been carried out for a few days, the topical application of Churchill's iodine, with frequent glycerine dressings, should be made directly to the lacerated surfaces. The application of the iodine should not be made more than twice a week. Tannic acid combined with glycerine makes a most excellent application, in fact any astringent acts well with glycerine, since the latter agent possesses a powerful influence over the capillary circulation.

If the granulations on the denuded surface should become exuberant and quite vascular, bleeding on the slightest touch, some of the mineral astringents can be resorted to with much benefit, such as pulverized alum or Monsel's salt. Before these astringents are dusted on, the parts should be thoroughly dried with pieces of old cotton or linen cloths. It must not be forgotten that the patient must be kept quiet, and, if possible, in bed most of the time; whatever application be made over the parts, they must be coaptated and supported as heretofore mentioned. The small cysts invariably observed on the lacerated surfaces should be punctured, or a very sharp, thin, bladed knife drawn freely over them, so as to give exit to their contents; when this is well done, Churchill's iodine may be brushed over the parts. This scarification must be done frequently, in fact so long as the cysts make their appearance.

Dr. Dudley, of Chicago, was the first to designate the operation by the name of trachelorrhaphy, which has generally been accepted by the profession. Dr. Munde, of New York, to be a little more explicit called it hystero-trachelorrhaphy.

The patient should be placed upon a stout table, with a suitable covering, and of convenient height, before a window admitting of a good strong light. We rarely ever use an anesthetic, and operate without any trained or responsible as-

sistants, with just such persons or friends of the patient that may be in the house at the time. The patient is then placed upon the left side, or the knee elbow position. A Sims' speculum is introduced, and the parts thoroughly examined—the two tenacula being again used to aid in deciding on the amount and the exact line of denudation. At this stage of the operation, the uterine tourniquet, an instrument, as its name implies, for the purpose of staunching hemorrhage, has proved invaluable. The instrument I improvise for this purpose is a small Smith's ecrasseur, with a large well twisted hempen thread, instead of annealed wire. The thread, after being adjusted in the ecrasseur in the form of a loop, is pushed back to the vaginal junction, completely encircling the cervix. When this instrument is in position it can be tightened sufficiently for all practical purposes and left lying at the bottom of the vagina, out of the way of the operator, and requiring no attention from assistants. The inferior lip of the cervix is now seized with a stout volsella, and sufficient force is used to pull down the uterus sufficiently, external to the vulva, as to make the operation plain and easy. Having now decided the amount of denudation to be made, the surgeon catches the lower side of one flap, either with forceps or tenaculum (the latter I prefer), and with scissors or scalpel (the latter is my preference), cuts away the entire mucous membrane and a small portion of the parenchyma, as far as the angle made by the juncture of the two flaps. Then seizing the other flap he treats it in the same way. The same process is gone through with on the other side, and the resultant of both being two long raw surfaces, one on each side, with a distinct strip of undenuded service extending up to the os internum. This undenuded surface represents the cervical canal, and if properly made, will be trumpet shaped, widening gradually from the external to the internal os. It is of the utmost importance to remember that every portion of the angles of the lacerations should be thoroughly removed, or else the success of the operation will be endangered, as well as the return of many of the disagreeable symptoms; especially is

this the case with neuralgia. Nor should it be forgotten that the circular artery lies very close to these angles, a severance of which would surely be attended by troublesome hemorrhage.

The flow of blood should now be staunched by the direct application of either a tampon of cotton or linen cloth. The next step in the operation is as follows: the surgeon again fixing the tenaculum, as heretofore mentioned, gently draws the cervical lip out so as to approximate the denuded surfaces, to ascertain whether they will likely lay in contact, when sutures have been introduced. When this has been found satisfactory, a tenaculum is introduced in the cervix near the upper angle of the laceration, when a sharp, short needle, armed as usual (with a loop of silk), for conveying silver wire, held firmly in the grasp of a good needle-holder is introduced about a quarter of an inch from the surface of the denudation, carried through the edge of the trumpet-shaped or undenuded surface forming the cervical canal, and in the same way passed through the opposite lips. A silver wire is now drawn into position and left undisturbed, until all the other sutures are introduced. It is more advantageous to introduce the sutures closely, not more than a fourth or third of an inch apart. A second suture is applied, and so on, until the apex of the cervix is reached, and if the operation be for bilateral laceration, the opposite side must be treated in the same way. It would be difficult to dwell too much upon the importance of using the short needles used by Emmet, in fact, the operation would be difficult, and in my opinion, unsuccessful without them. The wire sutures are now twisted, commencing from above, downward, and when all have been similarly dealt with they can be cut off to about half an inch, and then turned down to rest flat on the cervix. It is very important that the wire should not be twisted sufficiently tight as to endanger their cutting through. During the introduction of, or before the last sutures have been twisted, the tourniquet should be loosened carefully, and if there be no marked hemorrhage it may be removed entirely. In the event there should be troublesome oozing or hemorrhage, it may be arrested promptly by free injection of hot water.

It occasionally occurs that lacerations are multiple or "stellate," as designated by Emmet. The principle of the operation is the same only requiring more extensive denudation, or in fact, removing the smaller segments, and converting the cervix into two larger lips, free from cicatricial tissue; and the method of suturing, the same as in the simple operation.

After the operation is completed, the woman is put to bed, and there confined for twelve to fourteen days; her diet may not be much interfered with, nor need her bowels be disturbed, so they operate every two or three days. The bladder must be emptied by means of the catheter, but should a bed pan be used, a warm water injection must follow, so as to wash out any urine thay may have come in contact with the parts operated on. On the third or fourth day a warm water injection should be administered, and this kept up daily, and should there be much discharge, it may be repeated on the same day. If all things progress well, the sutures may be removed on the eighth or tenth day, but should there be the least doubt in the mind of the operator, concerning the healing process, he can with perfect impunity, allow the sutures to remain a fortnight or a month if necessary. The removal of the sutures is a delicate and we think a very important matter, as it requires but very little carelessness or inaptitude on the part of the operator to spoil a monument of success and bring on incalculable suffering. When the sutures are to be removed the patient is placed on the left side, a Sims' speculum introduced and the cervix brought plainly into view, the lower loop of the suture next to the vaginal junction is cut and gently withdrawn. It is important to observe this rule, of removing one suture at a time, because if there should be gaping the other sutures can remain for further service, but should the healing be satisfactory all the sutures may be removed at the same time, observing to cut each one in the lower loop. After the removal of the sutures, the woman must not get out of bed for ten or twelve days. At the expiration of this time a well fitting pessary must be adjusted, and the woman allowed to move about cautiously.

TRANSLATIONS.

I.

SYPHILITIC PHAGEDENA.

A LECTURE DELIVERED AT THE HÔPITAL DU MIDI, PARIS,

BY CHARLES MAURIAC.

(Translated and condensed from the Gazette des Hopitaux, by R. MATAS, M. D.)

Syphilitic phagedena will furnish the subject for the present lecture. You are doubtless acquainted, already, with the grave disturbances which it is capable of originating, as I have had occasion to describe this condition several times before, in speaking upon the syphilitic affection of the skin and subcutaneous tissues. Phagedenic ulceration may endanger either extreme of the career of syphilitic infection; but, it is far from manifesting the same tendencies and occurring with the same degree of frequency in both extremes. As a complication of primary syphilis it is exceptionally rare or dangerous. It is rare for this condition not to relieve itself spontaneously or to prove long rebellious to treatment in this stage of syphilitic disease. In tertiary syphilis, on the contrary, it rules supreme. This is the period of its greatest dominion. After once engrafting itself upon the congenial soil of tertiary syphilis, phagedena is not to be easily eradicated. We can neither foresee or calculate with certainty the damages and injury it will cause. Our means of combatting it, powerful and rapid as they are, are not sufficiently potent, always, to cope with it so as to arrest, prevent or paralyze its attacks.

In this lecture, I will confine myself exclusively to the study of tertiary phagedena, and through a detailed account of this condition, I will complete the history of syphilitic ulcero-tuberculous and gummatous dermatopathies. As regards primitive phagedena, I will refer you to my early lectures on chancre.

Is it necessary that I should define the word phagedena? Its etymology is sufficiently significant: it means, an ulceration that gnaws, that devours. Remark also, that it does not imply the necessity of a venereal or syphilitic element in its causation as we were not unfrequently taught to believe. This strange and fatal tendency of certain ulcers to leap over the normal barriers imposed upon them by limits of a *normal* morbid action, and to destroy without rest, in all directions, for an unlimited time, and too often, in spite of our best therapeutic agents, is observed in a great number of affections totally foreign to venereal diseases. It is a condition pertaining to a common order and not of specific application; it is an irregular, anomalous symptom, a deviation, a vicious modality, which may be pre-

sented by all morbid states in which ulceration is one of the essential or accessory, habitual or accidental phenomena. If it has become customary in ordinary language to attribute to phagedena an origin and suspected cause it is because it has been more frequently met with in venereal than in other maladies.

Though this is not the proper place to develop the general pathology of this accident, I believe it will not be inservient if I enumerate the principal conditions in which it may manifest itself outside of syphilis. From the start we are confronted by phagedena, as a characteristic of one of the maladies which it is our special duty to teach—one of the venereal trinity—chancroid. Chancroidal phagedena is that which preys upon the simple, soft, uninfecting chancre and its secondary bubo. It is a most curious form of phagedenic manifestation; it is the most redoubtable and typical of these. It is endowed with a peculiar specificity that is not found in any other form of phagedenic ulceration, and which depends not upon itself, but upon the lesion which it attacks. This specificity consists in the contagious, inoculable and anti-inoculable properties of the chancroid; properties, each and all, which remain integral and persist throughout the great changes and general disturbance caused by the phagedenic complication. I will endeavor to prove by subsequent statements that we are very frequently forced to recur to one of these properties, anti-inoculability, in order to distinguish tertiary phagedenic ulceration from chancroidal phagedena, when the topographical circumstances or the analogy in the symptoms and the processes become otherwise too close and narrow for ordinary differentiation.

Among the constitutional disorders which resemble syphilis most closely scrofula holds the first place. Phagedena is one of their connecting links, and certainly one of the strongest in the chain of general resemblance. It is even a tie of parentage, which at times leads to confusion in recognizing the separate identities of the two diseases. Scrofulous dermatoses are, at least, as often exposed to this accident as the syphilitic skin leisons. The different varieties of lupus, *l. exedens*, *l. vorax*, *l. terebrans*, and malignant lupus, constitute throughout their unpitying, destructive and refractory process, one of the most complete and serious phases of phagedena. Now, between this phagedena and that of tertiary syphilis the resemblance is often such that it is necessary to appeal to all the resources of diagnostic experience—outside of our knowledge of the lesion itself—in order to determine its real source and nature.

In the preceding maladies phagedena is not an unavoidable complication. It depends more on the predisposition of the individual than on the morbid state itself. But there are others in which it is never missing; manifesting itself in a greater

or less degree, constantly. It is in such cases no more an accident; it is a mode of manifesting destructiveness that is an inherent, essential and integral part of the lesion. It is through this very malignancy that these affections are known as malignant diseases. You evidently understand that I am referring to carcinoma and epithelioma They gnaw, they devour the flesh with a voracity far greater than that of syphilis and scrofula, but they do so in a manner which is peculiar to themselves, and which classifies them apart from these two affections. These peculiar phagedenic processes present, in general, a well cut and striking physiognomy which does not permit them to be confounded with the three preceding diseases.

Some skin affections which usually tend towards resolution and recovery may be complicated with phagedena, whenever the subjects who bear them become cachectic under the influence of age, or other hygienic conditions. We find the examples of this phagedenic tendency in the two extremes of life, especially in the aged, who are frequently afflicted with ecthyma and varicose ulcers of a bad character. Physical and moral misery, privations, excesses, and intoxications of all kinds—particularly alcoholism—are capable of impressing a dangerous phagedenic character upon ulcers which are naturally benign, and which would remain inoffensive were it not for these unfortunate circumstances. Climate, also, plays a great part in the etiology of phagedena, as is proven by the phagedenic ulcers of Cochin-China, of Mozambique and New Caledonia, and others whose nosological classification is difficult to settle, and which a naval surgeon, Dr. Aude, proposes to designate under the common name of phagedenic ulcers of tropical climates.

These preliminaries will teach you that syphilis, important as is its place in the etiology of phagedena, must share a part of its causal responsibility with quite a number of accomplices. I have presented at the same time, the proof that the ulcero-phagedenic process is far from being exclusive; it is not even select in the indiscriminate election of the diseases to which it attaches itself. It does not constitute a malady, *sui generis*, and apart from others, but it is a syndromic modality, of which, the characteristic traits vary, according to the fundamental lesion which serves it as a substratum or as a pretext for its appearance.

In the indefinite duration of syphilitic infection, at what time is phagedena most apt to manifest itself? In this particular as in many others, there are numberless variations almost as many as there are individuals. Any way, as a general rule it may be stated that this complication is much rarer in the *secondary* phase of this disease, than in the two first months, and especially, after the first and second years of infection have passed; which is equivalent to saying, that its appear-

ance is exceptional during the virulent period, and that it is not common during the secondary epoch, while it is observed frequently during the later stages. It is a process which forms an integrating, and essential part of tertiary syphilis, for it exists, though it be, even in its mildest and most benign form, in almost all the cutaneous, mucous or hypodermic manifestations of this period. If it is imperceptible at times and does not transgress the bounds of normal ulceration, its influence is felt, and more sensibly, as the accidents multiply, linger and assume a progressively cachetic expression. Do not expect that it is possible to assign to phagedena a fixed date or period for its appearance; that we must expect it to be missing or present at precise or calculable epochs. If, in its general evolution, syphilis demonstrates a greater uniformity and regularity than other diathetic affections, it escapes by a good deal from the mathematical nicety that was formerly attached to the prognostication of its stadia, symptoms, etc. Phagedena is a proof of this eccentricity and lawlessness. How often have we not seen syphilis crop out suddenly without any premonition; when neither the past or present health of the patient gave us any reason to suspect its coming.

The chronology of primitive phagedena is not so difficult to establish, for the event if it does occur, can hardly take place outside of the limits of the first two or three months, at most. Yet, here again, our judgment is exposed to fallacy and deception. We are confronted at times, by syphilitic chancres which appear superficial and benign, in the first days of our impection, but which suddenly inexplicably become deep, ragged, large and "phagedenized," so to say, in the course of a few weeks. I have observed some which did not undergo this unfortunate change till the fortieth or fiftieth day, at the very moment when the general secondary symptoms were being manifested. Per contra, other initial sores exhibit constantly, in a geater or less degree, the characteristics of phagedenic ulceration from the commencement to the end of their appearance.

II.

SOME POINTS IN THE HISTORY OF RABIES; ITS CURABILITY.

[Translated for N. O. Med. and Surg. Journal by L. F. SALOMON, M. D.]

There are very few diseases which, from a clinical point of view, appear to be so well known as rabies, as much so in man as in animals; the fatally progressive course of the disease when once declared, and its absolute incurability, are two axioms almost universally admitted.

However, facts exist which demonstrate that this view is much too absolute as regards the disease in animals, and there is no reason why what holds good in animals should not

be applicable, at least to a certain extent in man. The fine researches of Pasteur have already demonstrated that a dog inoculated and presenting all the well marked symptoms of the disease could get well spontaneously. But, besides this, facts clinically observed demonstrate that rabies may show itself in the form of paroxysms occurring at long intervals. We give several of these cases, which will serve for this short resumé from the pen of M. Bouley, in the *Recueil de Medecine Veterinaire:*

One of these cases is that of M. Perrin, Military Veterinary Surgeon at Orleansville. A dog having been bitten under the eyes by another dog, in which the autopsy showed it to have died of rabies, M. Perrin succeeded in carefully cauterizing the bite a few seconds after it was received. Cicatrisation took place regularly, and three months afterwards this dog went out with his master, but always well watched. Nevertheless, six months after the bite he showed indications of the disease, and it was easy to observe the signs of confirmed rabies, notably the characteristic howling in the presence of a fellow-creature. This condition lasted several days, then progressively disappeared, and the animal apparently entirely recovered. But, six months after this, that is to say, one year after the bite, new symptoms appeared exactly like the first, but which this time were very rapidly followed by death.

In this case, in place of following its ordinary course, rabies was developed in two periods very distant from each other, contrary to received ideas on this point. To explain this fact M. Perrin, relying on the experiments of M. Toussaint upon the attenuation of virus by heat, asks, merely as a hypothesis, whether the first paroxysm was not the result of the action of a virus weakenened by the cauterization performed so soon after the bite, which later on became, as it were, regenerated sufficiently to produce a second paroxysm that was mortal.

M. Bergeon, Veterinary Surgeon of Nice, has also reported a case which is comparable to the foregoing. A bitch, bitten and cauterized immediately after, commenced seventy days after the bite to show undoubted symptoms of rabies. She was, by advice of M. Decroix, shut up in a darkened room, away from all excitement without. At the end of six days an improvement was noticed and the cure appeared to be complete. But, two months afterwards, there was a new paroxysm, characterized by the same symptoms. This new morbid condition was prolonged twelve days. Then, again, the symptoms disappeared and health was re-established. At last, after another interval of one month, there was a third paroxysm, which this time resulted in death at the end of five days, with undoubted symptoms of rabies, confirmed by an autopsy.

These cases of intermittent rabies, which would be more numerous if it were not the custom to kill the bitten animal almost immediately, are the more interesting as they enable us to understand those which are followed by a permanent recov-

ery. This latter, we know, is almost universally disputed. However, M. Decroix, the distinguished veterinary surgeon, has published a study upon the subject, based upon nine observations which permit him to affirm its curability. Among the cases which he cites there are many (those relating to man) which may be criticised, but one of these observed by Dr. Ménessier, of Marseilles, appears to be absolutely demonstrative. A dog was inoculated and presented all the symptoms of rabies; a rabbit and two dogs were inoculated with its saliva. The rabbit developed rabies at the end of forty-eight days; one of the dogs died with rabies on the fifty-third day and the other on the sixty-sixth. Proof was thus trebly given by these experiments that the dog, which furnished the saliva for inoculation, was well affected with rabies. Nevertheless, this dog recovered after seven days from a disease of which the symptoms were too well-marked to allow of its nature being mistaken. He was watched for some months and remained in good health. M. Decroix cites several other cases of recovery both in animals and man.

In the latter it may be supposed that the symptoms presented were only the result of the vivid moral impression felt by the patients, knowing that they were liable to rabies and waiting with anxiety the moment when the disease should break forth. It has been averred that most of these cases of recovery from rabies in man were only cases of *false rabies*; yet it is not proven that it may be so in all, inasmuch as its curability in dogs is a fact now beyond dispute.

To these two examples can be added two other cases observed in dogs by M. Biot (of Pont-sur Yonne), in reporting them, he remarks that, the doctrine of the incurability of rabies is so firmly rooted within us, that the idea of its curability will not or cannot be entertained, and he adds that it is probable that a large number of veterinary surgeons have seen recovery from rabies and that they afterwards deceived themselves by questioning the value and correctness of their diagnosis.

This question appears at first to have no more interest for the veterinary surgeon than for the physician; but, if we consider the close connection which exists between human and canine rabies it is at once seen that it is impossible to separate their study and that it is the veterinary surgeon above all others who should be called upon to clear up this difficult question.

In concluding, we insist upon an important fact from a therapeutical point of view; that is, that the majority of those animals which recovered were simply confined in a darkened room, away from all causes of external excitation of every nature. This thereapeutic measure, which is not incompatible with the various symptoms of medication tried upon cases of the disease in man would perhaps give better results than have hitherto been obtained. This procedure has already been advised

in a disease which somewhat resembles rabies; we speak of tetanus. Prof. De Renzi (of Genoa), advises in this disease, that the patient be confined in a dark room, only opening the door every four hours to give food and drink; to close the auditory canal with wax, and to try to persuade the patient to remain as quiet as possible, etc. The success obtained by De Renzi in tetanus appears to have been particularly favorable, and may be compared to those which we have mentioned, in rabies.

III.

SURGICAL TREATMENT OF EPTHELIOMA OF THE RECTUM.

A CLINICAL LECTURE BY M, VERNEUIL, AT THE HÔPITAL DE PITIÉ, PARIS.

[Translated by R. MATAS, M. D. (Gazette des Hôpitaux).]

GENTLEMEN:—We are about to perform a long, laborious and quite serious operation—the extirpation of the inferior extremity of the rectum.

The patient before us was admitted some time ago in one of our wards with a suspicious ulceration of the lower bowels, quite appreciable to the touch. The examining finger when introduced into the gut feels, in fact, not a tumor, but an unequal induration which occupies the whole anal region, and measures a length of about five centimeters between the upper rectal strait and the termination of the ampulla or sac. Above and below this portion of the rectum the mucous membrane is healthy. It is not common for epthelioma of the rectum to present itself in this way, and it is the first time that I have had occasion to find the usual tumor replaced by a spread-layer deposit of neoplasm. I was in doubt, in the beginning, whether I was really dealing with a cancer or a syphilitic affection of the rectum. But the anti-syphilitic treatment instituted and continued, together with suppositories and other topical applications, since the day of his admission, having effected nothing in the way of relief, I have determined to resort to the only effective procedure—ablation—as if we were dealing with a case of ordinary epithelioma. Besides, in order that my opinion truly represents the nature of our patient's trouble I have re-enforced my diagnosis by a histological examination of a fragment of the diseased tissue, which has fully confirmed the diagnosis of the malignant nature of the tumor.

The operation, then, is absolutely indicated; but now the question arises, what is the most advantageous procedure to adopt in the operative treatment of this case? The practice of bloodless excision has caused a decided progress in the surgical treatment of rectal diseases. Formerly, it was customary to operate with the bistoury, and Lisfranc, who operated in this way with great ability, was the first to admit that the

serious loss of blood that complicated his operations was a grave obstacle in the way of their successful performance. A little later, Maissoneuve, in order to avoid all hemorrhage, devised a method of multiple ligation, which he practiced with the aid of a specially constructed needle, somewhat like that of Riverdin; but this, also proved to be a method full of dangers, and was almost impracticable on account of the atrocious pains it inflicted on the patient. Thanks, however, to the linear ecrasseur of Chassagnac, the extirpation of the rectum has lost most of its terrors and assumed a most encouraging aspect. Chassagnac practically crushed the diseased parts with several loops of his ecraseur, and thus severed bloodlessly the diseased tissues from the healthy rectum and the soft parts of the ischio-rectal fossa. A little later he modified his procedure, by introducing a preliminary dissection of the lower extremity of the rectum, with a cutting instrument, and detached it by traction from the surrounding structures, after which he severed the diseased from the healthy rectum by applying transversely the loop of the ecraseur.

Denonviliers also modified Chassagnac's method; he made an incision into the median line, i. e., in the least vascular parts, and then dissected, to the right and left, the rectal walls, thereby detaching them from the neighboring tissues. But, notwithstanding his excellent qualifiations as a surgeon, he was rather predjudiced against new instruments and rejected the chain of the ecraseur for the bistoury. The old difficulty—too much loss of blood—was the natural consequence.

Finally, in a comparatively recent period, the thermocautery made its debut, in surgical practice, to be replaced, soon after, by the galvano-cautery. It was at this time that I combined the use of the ecraseur with the thermo-cautery for the effectual performance of the operation that we now comtemplate.

As it is pretty difficult to detach the rectal walls with the ecraseur, I now use the knife of the thermo-cautery, with which I dissect much more easily. However, great as is my confidence in this instrument, when making my lateral dissections, I find my fear of it to be equally great when I am about to divide the rectum, just where the vessels are of some magnitude; and especially in such cases as this, in which the parts are still more vascular from extensive neoplastic formation. A wound of any one of these vessels would give rise, inevitably, to a profuse hemorrhage; and as it is essential to make a bloodless section in the deep parts at all risks, I cannot insist too much upon the avoidance of this important accident. This is the reason, you will perceive, why I employ alternatively these two methods.

I make a crescentic incision in front of the coccyx, cutting, in this way, a flap that embraces the skin, adipose tissue, etc., down to the rectum. I turn this flap up in order to gain more

light and ease in the performance of my resection; then I dissect the circumference of the bowel with the thermo-cautery and penetrate into the inner-rectal fossa, without shaving too closely the parieties of the rectum, to avoid wounding the important hemorrhoidal arteries. The rectum being thus detached, I divide it at the desired height. Formerly I made this section with the ecraseur in two steps, but this method did not exactly satisfy me. I had to recur subsequently to another procedure, an old method of excision; *i. e.*, the transfixion of multiple ligatures—not the plan of Maissoneuve, to which I have alluded above, but to a ligature bearing exclusively upon the rectal wall and applied with a Deschamps needle and a very strong silken thread. Once the rectum is dissected and detached from its surroundings, I split it in the median line in order that I may see the extent of mucous membrane involved in the malignant process. I draw the dissected tube towards me with a Deschamps needle, encircle about two centimeters of it with a strong ligature and divide the intestine below it with the thermo-cautery. Another segment is then seized and treated in the same manner, and the process being repeated successively until the lower bowel is completely rid of its diseased portion.

The ligatures applied, in the manner just recommended, are not in the least painful; they are not to be compared to Maissoneuve's, which were inserted through the skin and gave intolerable suffering.

The operation which I have just delineated, and which I always prefer, is of such a nature as to allow the surgeon to extirpate completely the diseased intestine and to practice the operation bloodlessly. It is for this reason a very efficacious and benign method. It is also of comparatively easy execution, so that it is practicable by all surgeons.

As to the subsequent treatment, there is none. I place no foreign body in the wound, I employ only the antiseptic dressing which has given me always satisfactory results. I say there is practically, no subsequent treatment, for if you wish your operation to be followed by cicatricial contraction, you need only introduce in the wound a foreign body, you will be sure to see it inflame, suppurate and followed by the production of hard, nodular, tissue; from which will supervene contractions and stricture, without including other accidents that may culminate in the death of the patient.

But you may inquire, does not the excision of a part of the rectum always lead to a certain degree of contraction? Yes; contraction will unavoidably follow the formation of cicatricial tissue, and it is for this very reason that I cut a flap of skin in the coccygeal region to obviate this difficulty, and through which I usually succeed in preventing the threatened retraction. The flap should be united on its bleeding concave surface to the posterior wall of the rectum, establishing in this way a sort of preventive and protective commissure.

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EDITORIAL.

THE RELATIONS OF SYPHILIS TO RICKETS.

We glean from our late Parisian exchanges, that the subject of rachitis in its relations to syphilis has proven the subject of lively discussion in the medical circles of the French capital. M. Parrot, the distinguished pathologist, whose anatomical and microscopical investigations of the osseous lesions of hereditary syphilis have shed so much light upon the nature of these important pathological changes, has again ascended the rostrum of the Societé de Chirurgie and made a vigorous, if not convincing effort in support of the dictum, enunciated by him some years ago, to the effect that rickets, as an independant nosological entity, did not exist, and was, merely, an advanced manifestation of heriditary syphilis. Armed on this occasion with numerous specimens, he endeavored to demonstrate the identity between the syphilitic bone lesions and those of rickets. He said that all the lesions of the skeleton in congenital syphilis, which are observed from the last months of intra-uterine life, up to the epoch of the second dentition, are but the various stages of a process which is finally evolved into a condition, identical, in every respect, with that of rickets. All the bony lesions of congenital syphilis, may be divided according to him, into three principal types, which represent so many stadia with as many intermediate blendings. The first of these is constituted by the formation of hard,

nodular, osteophytes or chondro-calcareous alterations; the second, by a gelatiniform atrophy; the third, by the formation of spongoid bone—the peculiar and characteristic lesion of osteitis deformans. When these different types are carefully studied, it is observed that they are but the successive modifications of the first type, and that the last always retains the imprints of the preceding stage. The whole series of these various changes may be found in the same individual. When a syphilitic bone has reached the spongoid stage, then, says M. Parrot, the subject is rachitic. No matter how much we may seek the distinguishing features, we are always confronted by the same result, i. e., absolute identity. "What is to be concluded from these observations," says M. Parrot, "must we not acknowledge that one and the other process are but the effects of the same cause?"

"All the causes that are usually enumerated may exercise a certain influence in preparing the soil, but if the germ of heriditary syphilis be not implanted, then the rachitic condition will never manifest itself."

In the exhaustive paper read before the society, M. Parrot, adduced many other arguments in favor of his theory, which, though interesting, are mere accessories to his fundamental argument—the anatomical and histological identity of the anatomical lesions. This opinion of M. Parrot, is but a clear enunciation of a doctrine which had been foreshadowed, long before him, by the observations of Valleix, Ranvier, Gueniot and Wegner. His prestige as a syphilographer, and the original power of investigation which have made him celebrated in his specialty, have won for his doctrine, since its first publication, many adherents in France and elsewhere. It is far from being generally accepted, however, as the emphatically dissenting voices of his colleagues MM. Magitot and Déspres, clearly proves. In England, where the subject of osteitis deformans was so thoroughly ventilated about two years ago, by the great luminaries of the London Pathological Society, the question of the relation between rickets and syphilis was one of the most contested points in the debate. M. Parrot's opinions had already been published, yet very few of the

debaters, among whom might be named such celebrities as Hilton Faggie, Sir Wm. Jenner, Hutchison, Pearce Gould, Crisp, Parker, Barlow and others, accepted the absolute truth of his patho-genetic theory; on the contrary, though acknowledging the influence of syphilis in predisposing the economy to the development of this condition, most of the pathologists advanced strong arguments against its acceptance. Yet in the presence of this formidable array of opposition, M. Parrot, has staunchly held his ground, and furthermore, strengthened in his position to his satisfaction, by an increased collection of histological data, has now reiterated his first proposition in a manner which hardly leaves doubt as to the truth of the morphological identity of the lesions of syphilis and rickets. Yet, and with all deference to his magisterial authority, we cannot accept his teaching upon purely anatomical grounds. Even admitting the identity of the two conditions in question, should we logically accept the unity of their origin? There are lesions, which, to use a chemical phrase, are anatomically isomeric, and yet are absolutely foreign to each other; they may be the same in appearance, and yet may be dependent upon diametrically opposite causes; a pneumonia may be produced by various opposite causes; an arthritis may be of rheumatic, gouty or traumatic origin. Bumstead wrote, in connection with the subject of traumatic syphilis: "It is very exceptional for the victims of multiple bone lesions to survive, and it is fair to assume that the number of bones attacked varies with the intensity of the syphilitic diathesis." Now, rickets is a distorting and serious malady, yet, though all the bones of the body may be attacked, it is far from habitually destroying its victims. Besides, rachitis is a common disease in the lower animals, and certainly without the intervention of the syphilitic virus.

Dr. Crisp, in the London discussion, stated: "that among animals the disease was so prevalent that there were no vertebrata in which it might not occur, when they were placed under special favoring circumstances.

Dr. Harley, had shown at the pathological society, the bones of a rickety horse; Dr. Dick, the bones of two Italian greyhounds, also rickety; and he, himself, had more recently ex-

hibited the rickety bones of several young pheasants, which had been kept in a confined space and fed on improper food.

All the lions born in the zoological gardens had soft bones, and nearly all of them had died before reaching maturity. Large dogs are often diseased, as are, also, lambs in cold, bleak places. Rickets had also been seen in foals not getting enough milk. It has also been seen in the hog."

Rickets has also been produced artificially. Dr. Heitzman's experiments made in 1873, upon dogs, cats, rabbits and squirrels, proved that osteitis deformans, or a condition in every respect analogous to it, could be induced by the more or less prolonged exhibition of lactic acid. The microscopical examination of the epiphyses, in these cases, gave an image fully identical with that of the epiphyses of rickety children. Wegner has recently brought experimental evidence to show that the administration of very minute doses of phosphorous, together with the simultaneous withdrawal of lime from the food produced this disease. Guérin fed very young dogs on flesh exclusively, and also produced rickets. Of course, as Dr. Gee says, it is open for M. Parrot to reply that these were different osseous diseases, but the *onus probandi* would rest with him and his followers.

It seems to us more than probable that, to the skilled and careful observer, there ought to be fair grounds for a differential diagnosis between rickets and syphilis, and that too, both in the ward and post-mortem room. Dr. Hutchison says: That these two diseases often co-exist and run their course together, is highly probable; surely, those who confound them, or who think that rickets, apart from syphilis, has no existence, commit a grave clinical error.

Our partial, if not complete immunity, from the painful inflections of rachitis, in this country, and in Louisiana particularly, certainly furnishes a rather striking argument against the syphilitic origin of this disease. The study of pelvic deformities is very much neglected in this country, according to obstetrical writers, because such deformities are practically unknown among American women. Notwithstanding the astounding assertion from the late Dr. Parry, of Phila-

delphia, that at least 28 per cent. of all the children, between 1 and 5 years, that came under his observation, were afflicted with this malady—it is a fact and well recognized fact, too, that pure, native American children are free from this deforming disease, at least in proportion to its prevalence in Europe; and that the cases furnished to the obstetric and pædriatic clinics of the Northern hospitals are almost exclusively of foreign nationality. Whoever has visited the overflowing wards of our Charity Hospital, for several years, as we have, and watched closely the various maladies that afflict the patients who seek assistance at that asylum, has surely been disappointed in his expectations of finding rickets in the number. It is a rare disease among us, yet who could be prepared to say the same of syphilis? Certainly, even admitting the assertion of M. Parrot, that in ninety out of a hundred cases of hereditary syphilis, the bones are affected, we cannot recollect a single instance, among the many we have seen, in which the syphilitic disease of the bones had advanced to a stage of rachitic deformity, such as would cause the bones to bend simply through muscular action, or by the weight of the trunk "in the manner of a quill, or willow stick," or which gave rise to the characteristic chondro-costal swellings known as the "rachitic rosary;" and, much less, to such specimens of syphilitic bones, so lacking in calcareous material, that they could be cut, as in some cases of rickets, with a knife, "with as much ease as a carrot or other soft roots." It is not long since we have been acquainted with the fact that many cases of bent and enlarged bones, formerly considered to be of rickety nature, are really syphilitic, and in this particular we owe much to the ability and untiring industry of M. Parrot. He has taught us a good deal about the osteo-chondritis of infantile syphilis; much about the periostitis of the long bones in the same disease; and has rescued a condition formerly considered pathognomonic of rickets,—cranio-tabes,—from the domain of this disease, and transfered it to its proper place in syphilitic pathology. But we are afraid that this time his enthusiasm has carried him too far, and that, together with Guérin, Broca, Gamba, Bouchut and Baxter, he is destined only

to have his page in the history of rickets, as one of those who have fruitlessly endeavored to elucidate its etiology. We have said, "fruitlessly," but we have spoken incorrectly; his failures, like those of his predecessors, have not been fruitless of benefit to science; in his endeavors to attain the prime object of his enquiries, he has certainly cleared the way to future investigations, and through his magnificent researches, has won the respect and admiration of the whole profession.

THE SMALL-POX PROBLEM.

Doubtless all our readers will be startled when they glance at the mortuary record published with this issue of the JOURNAL; 238 cases of small-pox and 76 deaths for January; 310 cases and 131 deaths for February; 619 cases and 221 deaths for March; 481 cases and 163 deaths for the two weeks ending April 14th. Total: 1648 reported cases and 591 deaths from small-pox in New Orleans, since January 1st. Of these, 742 cases and 208 deaths have occurred among the white population, 906 cases and 383 deaths among the blacks. A clear proof of the much greater prevalence and mortality of this disease among the colored people.

From these formidable figures it is plain that we are in a decidedly critical and dangerous situation. We cannot disguise the fact that small-pox has found a congenial nidus in our midst, and that it has grimly selected a most delectable site for its mortiferous recreation. Chased from all the civilized quarters of the globe, unable to find sustenance in its former feasting grounds, famished, panting with the desire of extermination, and craving to satisfy its insatiable gluttony, the wandering and pestiferous variola has finally found with us a resting place—an oasis full of its favorite and sweetest food, the unvaccinated negro—and in numbers sufficient to invite to almost perennial revelry. Here the cobra of variola may rest and devour its prey in safety, for the ichneumon of vaccination finds the way to its enemy barred by the will of man. Here, in spite of the most strenuous endeavors of the

health authorities, no more than 3000 persons have voluntarily accepted the grautitous vaccination offered them, leaving 30,000 to 40,000 members of our community, who, ignoring the beneficent work of the immortal Jenner, await to be imolated by this fearful ravager, in a grand holocaust to ignorance and perversity. With almost pre-Jennerian violence the pestilence has begun the work of desolation, as if in derision of the much vaunted sanitary supremacy of the nineteenth century. What an encouraging prospect before us this summer! Are we to add to the anxieties, troubles and cares of this treacherous season; to the paralyzing influence of our torrifying summer heat, to a continually menacing yellow fever visitation, the heart-sickening spectacle of a population disfigured or destroyed by a *preventable* small-pox epidemic?

Are we to remain in torpid quiescence, in a cataleptic contemplation of this danger without struggling in any way to rid ourselves from this apparent infliction of fatality? Are we sunk in such a depth of barbarity that we must say, with the stupid resignation of the degraded Asiatic: "Such is the decree of destiny; such the ways of Allah, and his people must abide by His will!" We hardly think so. The real truth, the *fons et origo* of our present troubles, is to be found in the fact that in Louisiana sanitary matters, and the health of the people especially, are made the last subject of inquiry by our legislators; if *salus populi* was the *lex suprema* of the ancients, the public health has fallen so low in the estimation of our modern Solons, that it is now barely their *lex infima.* Nothing could more clearly prove this than the slumberous apathy of our authorities in the present emergency. An extraordinary sluggishness on their part, which would seem to indicate that we must wait for the funeral of the last thirty or forty thousandth unvaccinated member of our population before we can expect to see an end to this foul pest.

We cannot speak in clearer and more emphatic language than that used by a leading sanitarian, at a recent meeting of the Sanitary Association: "The city had ample warning of all that has occurred, and if our city authorities had taken efficient action in December, 1881, the 800 lives since lost (March 29th)

would have been saved, the many lives yet to be sacrificed would remain to promote the general prosperity, and there would be no need now for an efficient demand for the advice of the Board of Health, and of this Association, to correct an evil which has been unwisely permitted to grow into its present magnitude. Tax payers would not now be forced to read such discouraging items as that they are to pay for an inefficient small-pox hospital, $1953 for January, $2136 for February, 1883—that is, at the rate of $24,000 per annum.

"What can and should be done? The problem is an old one, and after innumerable fruitless experiments at many different times, and by many different communities, *one solution only* has been found, viz: *compulsory vaccination.* This is the sole practical lesson taught by experience. By other means the evils of small-pox may be in some degree mitigated, but the disease cannot be eradicated except either by vaccination or by gradual exhaustion of the unvaccinated materials on which the poison feeds. The ignorance and prejudice of citizens may render the application of this remedy impracticable at present, but this does not free us, as sanitarians, from the responsibility of testifying to the manifest truth that compulsory vaccination is the sole remedy thus far found by human experience. And this remedy is so much more simple, inexpensive and efficient for small-pox, than our present remedies are for all other infectious diseases, that the community which will not apply this remedy for small-pox cannot be reasonably expected to rid itself of any infectious diseases whatever.

"Has compulsory vaccination ever been resorted to in communities of freemen as jealous as ourselves of individul rights? Yes; not only England, but various communities in the United States have decided that every resident has a right to go elsewhere, but has no right to remain among them unvaccinated, and thereby a source of public danger. At the present time every person in this city unvaccinated or inefficiently vaccinated, is more dangerous to the community than he who disobeys the law, forbidding him to carry concealed weapons, and than those forbidden to store gun-powder or explosive oils. Every intelligent citizen ought to demand that every

unvaccinated person should either be vaccinated or leave the city. *Give any man of sense requisite power for one month, and at its end there need not be a yellow flag left to affright the timid, nor a small-pox hospital to pay tribute to.* In the mean time, however, we are more likely to have learned discussions, to hold conferences, to substitute talk for action, and finally insult Providence by shifting on Him, a responsibility which He has given us ample knowledge and power ourselves to discharge."

The eloquent, instructive and authoritative words we have just quoted, express entirely and exactly our own opinions, and, we can safely say, the opinions of the vast majority of sanitarians in this country. They present the only solution to our difficulty. The situation has decidedly changed for the worst since the above was written, and now it seems to us that there is but one measure to adopt, one remedy to apply for the correction of the present evil, *compulsory vaccination.* Some time ago, the President of the State Board of Health pointed in an equally vigorous and emphatic manner to the Legislative authorities the necessity of compulsory vaccination as the only radical method of dealing with this pestilence. The Sanitary Association, the public press, and the profession have all unanimously echoed the opinion. It now rests wholly with the municipal authorities to move the stone that is to crush the reptile that is now poisoning our population. The Board of Health, with its crippled revenues, can but very imperfectly meet the exigencies of the situation. To properly combat this malady, besides vaccination, to isolate, fumigate and disinfect properly, this body ought to be granted some financial assistance; instead, the City Council has seen fit to curtail its appropriation from $10,000 to $6,000, and to strike from its budget the legal and customary appropriation for the record of the names of the indigent dead of New Orleans. Furthermore, one man cannot attend to the sanitary wants of 20,000 people placed under his charge, and it is plain that as long as the Board is not able to maintain a larger force than this to cope with the rapidly multiplying cases of small-pox in the various districts of this city, it cannot be blamed for any inefficiencies

that may be noticeable in its present treatment of our small-pox plague. What we do find decidedly censurable in the Board, is its unfriendly and even hostile disposition towards the efforts of our citizens, who, appreciating the financial inability of the Board to cope, single handed, with the gigantic task before it, have proffered, in the most defferential manner, their unpretentious, but certainly most powerful modicum of assistance. The benevolent and friendly advances of the Auxiliary Sanitary Association have been rejected. What does this mean? Is the Board doing its duty towards the people in thus peremptorily refusing the co-operation of a powerful and well intentioned body at this pressing moment, when all the energies we can combine into one harmonious action will necessarily redound to the public weal? Certainly such a pugnacious and acrimonious disposition can only tend to foment a discord and bitterness between the two guardians and protectors of the public health, that can hardly end otherwise than badly for the people.

Besides, now that "In the heavy slumberous air of the tropics the angel of pestilence is hovering with lungs breathing poison and outstretched wings from which death drops, preparing to swoop with the death instinct of the vulture and the fierceness of the condor upon the Southern coast," is it proper that our only health authorities should be wasting a time precious to the interests of the inhabitants of New Orleans and the whole United States, in puerile and unseasonable bickerings?

Would it not prove much more beneficial to all interested in the public health (and who is not), if they would continue in one grand colossal effort to cleanse and purify our city? First of all we must rid ourselves of the pest in our midst, and this we can only do by procuring the authority, the power, to act properly and effectually, and this power can only be obtained by one such combined, united and unanimous effort. It is almost wasting time to attempt to arrest a small-pox epidemic by fumigation, disinfection and isolation alone, and particularly, when at least one-third of the cases are unreported and hid from our inspection in the occult and obscure nooks and re-

cesses of our metropolis through fear, prejudice or ignorance. There is but one remedy to the situation and one alone, we have said it, all have said it, and not until the cabalistic words "vaccination is compulsory" shall have been pronounced, not till then will the humiliating and stigmatizing "small-pox" be erased from our mortuary records.

THE STATE MEDICAL SOCIETY.

The recent revival in State medical organization, as revealed by the animated, brilliant and enthusiastic meeting of the Louisiana State Medical Society, at Shreveport, this month, is certainly as unexpected as it is gratifying. We must confess that after the experience of the last few years, and since the foundation of the society, this sudden transition from a state verging on collapse, to the present ebulient activity, is delightfully and excusably surprising. From the rachitic slimness to which it had been reduced at its last meeting, held in our city in 1881, and the discouraging indifference exhibited by its members last March, under the cloak of the prevailing overflow, to the staunch and solid gathering of the seventy-five representative members who have congregated from all parts of the State at the Shreveport rendezvous, this year, there is quite a healthy difference and one well worthy of congratulation. Not unlike a marasmic consumptive, the State Society threatened to expire in our arms last year, yet with that tenacius hopefulness and adherence to life of the phthisical patient the society determined to hold its own to the very last, and ventured to try a change of climate in the faint hope of relieving its distressed condition; we confess that our prognostications were not the most cheering; we had gloomy forebodings, we were so possessed of that conviction, so inherent in most of us, that the climatic prescription is but the precursor of final dissolution that we can hardly realize the marvellous recovery; however, our patient is once more returned to us, free from the harassing pains and coughs; stronger, and once more joyous, buoyant and ruddy from the vivifying influence of the

congenial clime of Shreveport. As in a patient's case, we must dwell no more upon the society's past troubles; they are blurred pages in its history that will finally be effaced, we hope, in the midst of the brilliant effulgence of its future greatness. At present, we must think only of its renewed vigor, and of what it can and should do with its newly acquired strength. It has Herculean tasks before it, mighty labors to perform, in the way of the correction of the evils that oppress our fraternity throughout this State and which demand the most strenuous efforts from its now potent arm. The liberation of our communities from the outrages and nefarious operations of the charlatanism and quackery that overrun the State, and cling to fatten upon it with the swelling audacity of the protected and immolested parasite,—the advancement of medical education,—the general elevation of State medicine,—and positively, in the matter of enlightening our legislative bodies upon the demands of public health,—the manner of suppressing epidemics,—the disgraceful small-pox epidemic now prevailing among us, for instance, are all questions of vital importance to us all, both as practitioners and citizens, and which can only be solved by the united, representative and vigorous concurrence of all the medical minds of this State. We know that what we have just stated has received the attention of able and competent minds in this society, but their isolated and unaided efforts have not been able to obtain the desired object; let us hope now that they can count upon the voice of a representative and well organized body, that they will renew these efforts, which, though discouragingly fruitless in the past, are now full of promise under the brighter sky of the reorganized State Medical Society. Meantime, let us thank our kind Shreveport friends who, under the skillful guidance of the retiring president, Dr. Lyon, have done so much and so successfully for the cause of medical organization and who, in consequence, are so deserving of the gratitude of the profession throughout this State. The election of the present corps of officers speaks well for the selective acumen of the society, and argues hopefully and brightly for the continuance of the present good work. Under the presidency of

such an accomplished and veteran leader as Dr. Davidson, we feel certain that the society will continue in that path of progress, activity and usefulness, so necessary to the general welfare of the profession in Louisiana.

THE SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.

The Sanitary Council of the Mississippi Valley met at Jackson, Miss., April 3d and 4th.

The great importance of this meeting was appreciated by the commercial community of New Orleans and a large delegation representing all the principal interests of this city was present. Owing to the probable discontinuance of the work of the National Board of Health during the summer of 1883, and the consequent feeling of distrust and insecurity, on the part of the health authorities throughout the valley of the Mississippi, there were fears of action on the part of said authorities which could only result in detriment to all parties, and probable hardships and interruption to travel and traffic. Unfortunately (and it is to be regretted) the said authorities possess little or no confidence in the health authorities of Louisiana. It is not our province, nor do we desire to enter into the causes of this want of confidence, whether unfounded or not. The fact remains, in face of all that may be said to the contrary; and the difficulty presented by this attitude of the officials of the Valley States, the medical, sanitary and commercial interests of New Orleans were called upon to meet.

Happily, the meeting at Jackson was conducted in a spirit of harmony and good feeling; and by mutual concessions and a desire on the part of all concerned to do nothing which could be accredited to a spirit of ill will or acrimony, a solution of the difficulty was arrived at, which is the only one that could meet the exigencies of the situation. We shall have something to say further on of each resolution which was adopted.

It is to be regretted that our State Board of Health did not

"deem it expedient" to be represented at this meeting. Whatever may have been done heretofore, or whatever aspersions may have been indulged in by individual members of the Council, should not, in our humble opinion, have prevented the Board from sending delegates. The questions to be decided at that meeting were of paramount importance and of such nature as to make them of vital interest to the citizens of New Orleans, and in its capacity as the guardian of not only the health, but also of the commercial well being of New Orleans, it appears to us that the Board of Health should have been represented.

True, the board in session adopted a resolution which was transmitted to the Council, pledging itself to co-operate with the health authorities of the valley in the effort to prevent the spread of infectious disease, but with a representative on the floor of that meeting much more could have been achieved in the way of restoring confidence. The Louisiana State Board of Health has persistently refused under its present organization to meet in council the other health authorities of the valley, and we can hardly be surprised at the consequent feeling of distrust, due in a great measure to this refusal.

The wisdom of the different bodies of New Orleans in sending a large delegation to this meeting was demonstrated in the end attained. The people of the valley were told that there was no desire upon part of the people of New Orleans to conceal any facts bearing upon the sanitary condition of the city, and were assured that every facility would be afforded and co-operation accorded which would tend to restore confidence and protect, as far as in their power lay, the inhabitants of the valley from pestilential disease.

We believe the resolutions adopted, if carried out according to the plan conceived, to be a solution of all difficulties, and there will be no reason to apprehend for the coming season such barbarous acts as only arise from panicky fear and distrust. Could the intent of the Sanitary Council be carried out effectually the shot-gun quarantine would become a thing of the past.

The following were the resolutions adopted, bearing upon the situation:

WHEREAS, it is the sense of the Sanitary Council of the Mississippi Valley that the National Board of Health is a body which possesses the confidence of the States of the valley; it is therefore recommended that a committee be appointed by the president of this council to petition the President of the United States to place the $100,000 epidemic fund in the hands of the National Board of Health for disbursement in case its use is demanded.

Resolved, That in case the National Board of Health is deprived of the power of making inspections of persons and freight when demanded by the local Boards of Health, certificates issued under the supervision of a representative or representatives of the Sanitary Council of the Mississippi valley shall be accepted as valid by the Boards of Health of the Mississippi valley, provided, that said inspections be carried on under the rules and regulations heretofore prescribed by the National Board of Health.

Resolved, That the Sanitary Council of the Mississippi Valley recommends that the States of the valley make voluntary contributions to be expended under the direction of the executive committe of this council, to continue river and rail inspections in the event that no funds are placed in the hands of the National Board of Health for this purpose.

Resolved, That the Sanitary Council recommends for the guidance of the health organizations of this valley, the system of inspection and isolation, disinfection and quarantine heretofore adopted by the National Board of Health.

Resolved, That the communication of the Louisiana State Board of Health be received in the spirit in which it is tendered, and that their co-operation with the Sanitary Council of the Mississippi valley, in protecting the valley from epidemic diseases, will be cordially approved and acknowledged.

The adoption of the first resolution was based upon the fact, that the National Board of Health possesses the confidence of the valley and that its work in 1879, at New Orleans and Memphis prevented the scenes which were enacted in 1878, when acts were committed which for inhumanity could only be equaled by the inmates of an insane asylum. If the National Board

possesses this confidence and if the people of the Mississippi valley are willing and desire that their protection should be placed in its hands, is it not but reasonable and just that this fund, for use in case of epidemic or threatened epidemic, should be placed in such hands?

Besides, with a corps of subordinates who have had a large experience in the performance of the duties assigned them, and with all the paraphernalia and facilities for prosecuting the necessary details, it appears to us that the work could be better accomplished than through any other agency.

The second resolution promises the assurance of confidence and prevention of extreme measures in the way of unnecessary quarantine based upon unauthoritative information or unfounded rumors; for, with a representative selected by themselves, under whose supervision the necessary health certificates shall be issued and upon whom they will rely for information of the sanitary condition of New Orleans, and which information they will accept as truth, the States of the valley will rest in a feeling of security which can be obtained in no other manner.

The State Board of Health has pledged itself to accord every facility to such a representative, and it is to be hoped that every physician in New Orleans will lend his individual co-operation in the effort to show to the people of the entire valley that there is no desire to conceal, but every wish to give all information necessary to the preservation of the health of its inhabitants. We are informed that the delegates from New Orleans have promised this much, and we trust that every one will appreciate the necessity of his individual co-operation in the effort to free our good city from the aspersions which have been cast upon it, and demonstrate to the whole country our honesty of purpose and determination to act for the "greatest good to the greatest number."

PHARMACEUTICAL EXHIBITION.

The activity displayed by our pharmaceutical friends at the Werlein Hall Exposition is certainly deserving of the success

they achieved. Messrs. Girling, Hiriart, Wunderlich, Johnson and Gouaux, the executive or managing committee, have piloted this pioneer undertaking in a manner that reflects very creditably upon them. The various chemicals, drugs, instruments and other pharmaceutical products were tastefully arranged, the work of our local dealers comparing quite favorably with the exhibits of Northern, Eastern and Western houses. The exhibitors were: I. L. Lyons, of New Orleans, wholesale and retail dealer in home manufactured and foreign imported articles; Sharp & Dohme, of Baltimore, Md., manufacturers of sugar-coated pills, alkaloids, abstracts, etc.; Mallinckrodt Chemical Works, St. Louis, Mo., manufacturers of pure chemicals for medicinal, photographic and analytical purposes; Armand Hawkins, medical, pharmaceutical, scientific and art books, New Orleans; Henry Thayer, Cambridgeport, Mass., fluid extracts, sugar-coated pills, etc.; C. L. Keppler, New Orleans, pharmaceutical and chemical articles of home and foreign manufacture; Ferdinand Lascar, New Orleans, also manufacturer and importer of pharmaceutical products; E. J. Hart & Co., large wholesale dealers in New Orleans; Tatum & Co., of New York and Philadelphia, manufacturers of druggists' glassware; A. Gugenheim & Co., New Orleans, candies, gumdrops, etc.; Colburn, of Philadelphia, mustard; Young, Todd & Co., Lundborg's perfumes; L. C. Tenfield & Co., Philadelphia, trusses, abdominal supporters, etc.; Oldenberg-Wall Laboratory, St. Louis, Mo.; H. F. Miller, Baltimore, Md., druggists' seamless tinware; Seabury & Johnson, New York, plaster manufacturers; Caswell, Hazard & Co., surgical instruments; P. L. Cusachs, druggist and chemist, New Orleans; Collins' White Lead and Oil Company, St. Louis, Mo., Colgate & Co., soaps and perfumes; and Shepherd & Dudley; surgical instruments, New York.

CHARITY HOSPITAL—ELECTION FOR OFFICERS FOR 1883-4.

At the regular monthly meeting of the Board of Administrators of the Charity Hospital, held April 2d, the annual elec-

tion of officers took place, resulting in the re-appointment of all the present incumbents:

Dr. A. B. Miles, house surgeon; assistant house surgeon, Dr. D. Jamison; pathologist, Dr. H. D. Schmidt; chemist and druggist, John Johnson; clerk, Chas. De Mahy; engineer, John Condon; attorney, John A. Gilmore; secretary and treasurer, Will. Steven.

Dr. O. R. Lang and Dr. H. D. Bruns were elected oculists; and Drs. J. H. Bemiss, J. M. Baldwin, P. E. Archinard, L. H. Von Gohren, A. McShane, Joseph Holt, A. Nolte, C. Chassaignac, E. G. Ames, W. W. Campbell, S. H. Hart, E. S. Lewis, Stanhope Jones and Geo. Huhner, were elected visiting physicians during the summer months, and Drs. C. Faget, J. S. Ford, H. A. Veazie, G. B. Underhill, P. B. McCutcheon and F. W. Parham, were elected visiting surgeons during the summer term.

The following students were also elected: F. Artaud, E. Laplace, J. Callan, H. B. Williams, J. Peake, Allain, Blanc, Lowe, Seeman, Durniger, Colomb, Littell, Riley, Olliphant.

We are pleased to notice in the present list of appointments the names of a number of prominent young workers who, in conjunction with the able resident staff, will, doubtless, make good use of the unexcelled opportunity offered by the Charity Hospital for the prosecution of original and practical research.

Reports of Cases.

I.

Analysis of Nine Cases of Cerebro-Spinal Meningitis Observed in the Charity Hospital, New Orleans,

By A. McShane, M. D., Visiting Physician.

From December 27, 1882, to March 2, 1883, nine cases of cerebro-spinal meningitis were treated in Ward 31, of the Charity Hospital. The cases were all of a sthenic character, and so violent was the course of the disease that medicines seemed to

have but little influence upon it. The symptoms of this terrible disease are so familiar to all that it is unnecessary here to set forth those presented by our cases. We will give a brief sketch of each case and make some remarks upon the causation of the disease and our treatment:

Case 1. Joseph Calhoun, aged 19, admitted December 26, 1882. He was delirious on admission. Twenty grains of sulphate of cinchonidia were given every three hours by enema. Enema containing 15 grains of bromide of potassium and 10 grains of chloral hydrate were given every two hours. The cinchonidia reduced the temperature from 103° to 101° in twenty-four hours; but the chloral and bromide exerted little or no influence upon the spasms. The patient died exhausted on the fourth day after admission.

Case 2, upon admission, complained only of fever, for which 10 grains of cinchonidia were given every three hours; this reduced the temperature from 104° to 99°. When the mental disturbance set in he was put upon 15 grains of bromide of potassium and ten grains of chloral every three hours. These remedies, however, did not modify the course of the disease; he died on the fourth day of the disease.

In case 3 the same quantities of chloral and bromide were given, but no cinchonidia. The chloral and bromide diminished the violence of the spasms; but the temperature was not reduced—three hours before death it ran up to 106°. He died on the fifth day of the disease.

Case 4 had been treated for remittent fever before the meningitis manifested itself. When the characteristic symptoms of the latter disease appeared he was at once put upon the same quantities of the chloral and bromide as the other cases, given every two hours. This medication produced no good results. The patient passed into a state of exhaustion; he was stimulated, but he rapidly sank and died on the sixth day of the disease.

Case 5 came into the hospital in an unconscious, exhausted state. We had no opportunity of treating him actively; stimulants were administered, but without effect. The autopsy revealed the cause of death: cerebro-spinal meningitis.

In all the cases (except the fifth) the treatment had been almost uniform; the result was the same in all cases. We determined to make an alteration in the line of treatment, which we did; with what result will be found in the history of the next case.

Case 6, Milton Hayne, aged 22, a strong negro, fell sick on January 22, 1883. He had fever, and pains in the head and back. The fever was preceded by a sense of chilliness. The headache was very severe, and was referred chiefly to the frontal and occipital regions. The rachialgia was complete, and was most marked in the cervical region.

On admission, the patient was in the following condition: frantic with pain which he referred to his whole head, neck and back. He had some difficulty in collecting his ideas when spoken to. Temp., 102°; pulse, 94; resp., 24. Pupils were rather contracted: conjunctiva greatly injected. The muscles of the right side of the neck were contracted in tonic spasm. Continually tossing his legs and arms about. Abdomen retracted; constipation for two days. Urine contained a trace of albumen. On the night of January 24, (day of admission) he took 40 minims or tr. opii in 10 minim doses every half hour.

January 25, 10 A. M. Patient passed a restless night. He is suffering somewhat less than yesterday; symptoms about the same in character. Temp., 104° pulse, 108; resp., 30. He took one ounce of castor oil, which operated freely. At 11 A. M. the pains became as severe as they were the day before. There is now marked hyperæsthesia of the lower extremities and back. Tongue dry and coated with a grayish-white fur.

The following measures of treatment were then adopted. The patient was bled, seven ounces of blood being drawn from the right arm; a blister (4x4) was placed over the front part of the scalp (the hair having been previously shaved off); another (3x4) over the nape of the neck; and another (4x5) on the calf of each leg. Ten grains of bromide of potassium and fifteen of chloral hydrate were given every two hours, together with two teaspoonfuls of syrup of morphia (gr. ⅛-3i).

January 26. The patient is in a state of somnolence, but

can easily be aroused to drink milk and milk punch. Temp. 102°; pulse 100; resp. 24. The chloral, bromide and morphia were kept up day and night, throughout the disease.

The temperature gradually sank, until, on January 31, it reached 97½°; stronger milk punch was then given to him.

February 1. Temp. 98½°. The slight headache which was present yesterday has entirely disappeared; and, to all appearances, the patient is convalescent. The morphia was stopped, but the chloral and bromide were continued in the same doses, twice daily. The improvement has been steady; the patient is rapidly regaining his strength, and is now able to walk about. Discharged cured, February 12, 1883.

(The above history was kindly written by Mr. E. Laplace, resident student.)

Case 7 presented at first the symptoms of remittent fever, like several other cases. He was treated accordingly, with cinchonidia. When the meningitis showed itself he was at once put on chloral and bromide, as in the other cases. He was bled six ounces. This case terminated fatally; but it is worthy of remark that he died on about the fifteenth day of the disease, instead of on the fifth or sixth as did most of the other cases.

Case 8 was a man of Herculean build; and in him the disease ran such a terrible course that nothing seemed to affect it. He, like the preceding case, at first presented only the symptoms of remittent fever; the temperature was 102½°. Two days after admission he became delirious. He was at once put upon chloral and bromide, and also morphia, hypodermically. Forty hours after delirium set in ten ounces of blood were taken from his left arm; but perhaps it was rather late to resort to bleeding, for the disease progressed without interruption until death took place, on the ninth day of the disease, and four days after the delirium appeared.

Case 9 was mild. When he entered the hospital the symptoms of meningitis were already present. Ten ounces of blood were immediately drawn from his left arm. He took chloral and bromide as the others; also one grain of opium about every four hours. The improvement in this case was wonder-

ful; the symptoms disappeared, and for three or four days his mind remained perfectly clear; his answers were intelligent and the nervous symptoms had entirely vanished. The patient ate well and everything pointed to a prompt and sure recovery; but on the eighth or ninth day of the disease his mind again began to wander a little; he refused food; his pulse became rapid and weak; his temperature rose; he muttered constantly; he became very restless and nervous, and was always trying to get out of bed, or else to slide down to the foot. He continued to grow worse, and he died, exhausted and unconscious, on the twelfth day after the invasion of the disease.

The treatment of the above cases comprised the following: Chloral hydrate, bromide of potassium, opium, blood-letting, counter-irritation and stimulants.

The histories of our cases show that bromide of potassium and chloral hydrate, at least in the doses given, are insufficient. In every case (except case 5) not less than 45 grains of the bromide and 30 grains of chloral were given every twenty-four hours; some cases took more than that, notably case 6, who took a much larger quantity. In case 6, 15 grains of bromide and 10 grains of chloral were given every two hours, day and night; which would make three drams of bromide and two of chloral every twenty-four hours. This heroic dosing, however, was not long kept up, not more than three days, when the doses were given farther apart.

The chloral and bromide, in the doses of 10 and 15 grs, respectively, three times a day, are certainly inefficient in patients of strong frame, and in whom the disease is violent. Cinchonidia reduces the temperature somewhat; but it does not seem to be a valuable aid in the treatment of meningitis.

All our cases except one, were of a violent character and demanded a treatment proportionately active. This is borne out by comparing the treatment and results in the first four cases with the treatment and result in case 6. In this case the treatment, as above detailed, was very active. The chloral bromide and morphia were given often and in goodly doses; no fault could be found with the extent of the counter-irritation; and the blood-letting, though moderate, was beneficial.

It is especially to the value of the blood-letting, that we desire to call attention. We cannot give it all the credit for the favorable result in case 6; because the chloral and bromide were given almost to excess, morphia was also given, and the counter-irritation added its share, small as it was. Perhaps some may think that the chloral and bromide did all of the work, and that the other measures were fruitless and could have been dispensed with; but if we examine the treatment of case 9, we shall see that such a supposition is incorrect. In case 9, the chloral and bromide were given in the usual doses three times a day together with one grain of opium. Ten ounces of blood were drawn. The disease seemed to have been cut short; all the symptoms disappeared; and although the patient relapsed and died, still, that does not disprove the results of the treatment. Here, then, we have a case in which the same amount of chloral and bromide were given as in the first three cases; but, in addition, opium was administered and blood-letting practiced. The opium was not given in large quantity; and, if the blood-letting had not been practiced, we may assume with safety, that this case would have run a course similar to that of the first three cases.

In cases 7 and 8, blood-letting was resorted to, but it was not followed by any marked effect. Unfortunately, we did not note at what time of the disease blood was drawn in case 7, but, as we remarked before, the violence of the disease abated somewhat, for the patient only succumbed in two weeks after the invasion. In case 8, we bled forty hours after the delirium had become established; probably this delay was fatal to our patient.

We bled always from the arm; the impression produced on the circulation was certainly marked; but, then, the impression on the circulation of the brain was not more marked than elsewhere. We want this local impression to be produced and, in reflecting on the subject, it seems to us that this impression could certainly be more directly and quickly brought about if the blood were to be drawn from a point nearer the skull. If blood were to be drawn from the back of the neck, the brain would undoubtedly be quickly relieved, on account

of the extensive communication between the vessels internal and external to the skull. In very violent cases the external jugular might be opened with immediate and decided benefit.

A few remarks on the etiology of our cases would not come amiss, although properly this subject should have been discussed first.

Only two of our cases came in contact before the invasion of the disease. These were our first two cases. They were young men, cousins, who drank to excess last Christmas. When night set in they were exhausted, and lay down all through the cold night in a dry street gutter. The third patient was a laborer on the levee, and had not come in contact with any other case. The fourth case had arrived from Jamaica only three days before the invasion of the disease. The fifth case was also a laborer on the levee; but he had not come in contact with a similar case, and entered the hospital one week after the death of case 3. Case 5 became sick in Clinton, La. Case 6 developed in the city, but far away from any other case. Case 8 developed after several nights of exposure on the streets. Case 9, place of residence not known.

With the exception of the first and second cases no two of our patients had ever come in contact before they entered the hospital. Of those who lived in the city, and whose residences were known, no two lived within half a mile of each other. We may then pretty safely exclude contagion as a cause in our cases.

The exciting cause was invariably exposure to cold in some manner.

April 11, 1883.

II.

TWO CASES OF LEPROSY.

Reported by D. T. Smith, M. D., Gretna.

In view of the lively interest awakened in the subject of leprosy, and especially as regards its contagiousness, I take pleasure in reporting two cases that have recently come under my observation in the parish of Jefferson.

Case 1st. J. H., dark mulatto, aged 24, male, was born on the Millaudon plantation, in the parish of Jefferson, opposite the city of New Orleans. His father and mother, and grandfather and grandmother, on the father's side, are at present living in Gretna, and besides he has an extensive relationship here, in none of whom is there any sign of leprosy.

Up to the age of 17, when the first manifestation of the disease occurred, the patient had never been away from home, except to the city of New Orleans, and to a plantation ten miles above the city and on the opposite side of the river.

At the age named the disease began to manifest itself by the appearance of whitish spots on the face and aching pains and tingling of the extremities. Soon after he began to suffer from fever, severe pain in the head and bleeding at the nose. The pain in the head, with the fever and epistaxis, passed off in a few days, and may have been due to malaria. The white spot and the pains in the limbs, however, persisted until about a year since, at which time the pains, in a great measure, subsided.

Steadily, from the time of the appearance of the white spots, tubercles began to develop profusely on the face and to a less degree on the extremities. At the present time the entire face is studded with them; the nostrils are greatly obstructed and the voice is nasal and husky. Portions of all the toes of both feet have undergone spontaneous amputation, or rather have ulcerated away. For a number of years past he has been in the habit of working during the winter with the longshoremen on the levee, but in the spring he has invariably become worse and had to lay off till the latter part of summer.

This spring, however, up to the present time, April 3d, he continues his work, and declares himself much improved: a result he attributes to the treatment of a Voudou "doctor" living near the French market whose promise is to disenchant him of a "hand" that has been put upon him. Certain it is, he has very little discharge from the various ulcerated surfaces, and enjoys a tolerable degree of physical comfort.

He tells me that the sexual appetite has not been impaired by the disease, that he has "kept" several different women

since its appearance, to none of whom he has communicated it; and that he has a child by one of them, which is between four and five years old and entirely healthy.

Case 2d. Mrs. J., white, widow, aged 47, was born on —— street, New Orleans. Her father was born in Hamburg and mother in Baden. The father died at the age of 42, of chronic dysentery, and the mother at about the age of 40, of apoplexy. Her husband died from exhaustion, resulting from a complicated fracture. Like the first case, Mrs. S. has no knowledge of having ever seen or come in contact with a case of leprosy, nor has she knowledge of any kind of skin disease having occurred among any of her relations.

About five years ago she began to suffer with aching pains in all of her limbs, together with marked anæsthesia. The pains would last sometimes for a week, and at others less; but she was seldom for any considerable length of time free from them. This state of things continued for about three years, during which time, and while under a course of treatment, most likely iodide of potash, there appeared on the arms and legs a dark blue eruption in blotches from an eighth of an inch to an inch and a-half in diameter. These spots afterward became black and "looked as if they would mortify." The stains produced by them are still persistent, and are of a light brown color.

In the spring of 1882 her hair began falling off, and she is now nearly bald. The eyebrows were the first to disappear; the eyelashes still remain. The skin of the forehead is much thickened, and the countenance presents a decidedly "leonine appearance." There is no sore throat present nor has there been any, nor any other evidence of syphilitic affection. She has three grown up children, who, without being strong, exhibit no sign of constitutional disease.

Some four months since she removed to Waco, Texas, and my latest information is that she suffers less pain since the change of residence without, however, material improvement. Now as to the question of contagiousness the lesson of these cases has been presented in their history.

This parish (Jefferson) borders on Lafourche parish which is noted for leprosy. But the region on the Lafourche where leprosy has so long been domiciled is more than fifty miles away. The two patients whose history has been given are virtually citizens of New Orleans; and if they have come by the disease through contagion—which I do not doubt:—they must have received the virus from one of the cases which have from time to time appeared in the city, or from some infected person traveling up from the Lafourche.

The history of the first of these cases goes to add to the already accumulated proof that the contagiousness of leprosy is of a very limited character.

As to the influence of treatment upon these cases, I can contribute nothing.

Reviews and Book-Notices.

Experimental Pharmacology. A Hand-book of the Methods for Studying the Physiological Actions of Drugs. By L. Hermann, Professor of Physiology in the University of Zürich. Translated, with the author's permission, with notes and additions, by Robert Mead Smith, M. D., Demonstrator of Physiology in the University of Pennsylvania. With thirty-two illustrations on wood. Philadelphia: Henry C. Lea's Son & Co., 1883, 12mo., pp. 201. For sale by Armand Hawkins, 196½ Canal street. (Price $1 50.)

The work before us is intended to furnish the student with a manual that will assist him in his study of the physiological action of drugs, enabling him to make the experiments himself that would otherwise require the assistance of an instructor.

Besides the usual instruction, it is divided in two parts, viz: one, the first part, devoted to the study of the action of pharmacological agents or poisons on isolated organs. It deals briefly but clearly with the *alterations* in the consistence and reaction of the blood, in its coagulability and in the coloring matter, the gases, the organizing power and the morphological elements of this fluid, produced by toxic substances.

The section devoted to the examination of direct and indirect muscular irritability, to the measurement of muscular energy and the chemistry of muscle tissue, as affected by drugs, is also lucidly written and bears the imprint of a familiar expert hand, which does not discredit the renown of the physiologist of Zürich.

In the second part the general action of poisons in the economy is investigated. The selections of animals and their management, the paths of elimination and changes of poisons in the body, the explanation of the symptoms produced by poisons; alterations in tissue, in the reproductive function and in temperature; action on muscles and in nerves; anatomical and chemical alterations produced by poisons, all are successively passed in review in a practical, instructive fashion, which speaks well for both the author and translator. In the section on thermic alterations produced by drugs, a good deal more could have been appropriately written to assist the student in this important line of inquiry. A few lines descriptive of Senator's calometric appliances and Wood's modification of the same, would have proven far more advantageous than simple references to Anderson's and Woods' books on the subject. Something to the same effect could be said of the section on the altered chemistry of the muscles and other less important chapters. But, as a whole, the book, short and apparently synoptical as it appears, is deserving of encomium as a correct exponent of the spirit and tendencies of modern pharmocological research. Indeed, after closely perusing its pages, all laden to overflowing, with the richest facts of physiological investigation; after winding our way through the intricacies of the maze of appliances, all subtle and mathematically precise, that are now indispensable to the thorough investigation of physiological phenomena: and, after following the astounding progress of toxic pharmacology, as revealed by the author in the brilliantly analytical chapter devoted to the study of the various agencies that control cardiac action and the circulatory mechanism, we feel that we are fast approaching the realization of that utopian dream in which we behold experimental and clinical experience firmly and inseparably united, to free the prac-

tice of our art from the shackles of a degraded empiricism, and to elevate it to the pure realms of scientific rationalism.

We are of the belief that, if more of the knowledge contained in such works as the one before us were widely diffused and cultivated among the students of our universities, and if a mastery of experimental pharmacology and a thorough training in laboratory technology would be demanded as an insurmountable and essential pre-requisite of all aspirants to the dignity of the doctorial investure, by examining boards and faculties, we would not only produce men immeasurably more competent to cope with the intricate problems of disease, but we would most happily diminish the number of those who, relying solely on the "working bulletins" of manufacturing houses, for their knowledge of new therapeutic agents, are, as a rule, the mere dupes and victims of the rapacity of unscrupulous dealers. Furthermore, a perfection in experimental knowledge would more frequently save us from those hasty or fallacious deductions, which are the most fruitful and unjust sources of disappointment when a new or obscure drug is tested in the crucible of experience,—disappointments which naturally engender that dangerous therapeutic skepticism, so prevalent and manifest in the writings of the best men of our day.

We have already devoted an unusual amount of space and time to this small book, and yet we hardly think we have said too much for it. Of course, it does not contain the information needed by a special investigator, such as would be found in Sanderson & Klem's "Physiological Laboratory," or in Bernard's or Cym's handbooks on vivisection, etc.; but it is a reliable, concise and practical vade-mecum for the time-pressed worker in the laboratory. It has not fully come up to our expectations of Prof. Hermann, particularly after the rather fresh memories of his voluminous and brain-crushing "Physiology,"—we expected a little more fullness from him;—fortunately, however, most of his deficiencies have been corrected in an able and thoroughly competent manner, by his American translator, who under this modest title has written more than one good half of the work, and that, certainly, the best and most practical portion of it.

Headaches—Their Causes, Nature and Treatment, by William Henry Day, Author of a Systematic Treatise on the Diseases of Children; Physician to the Samaritan Hospital for Women and Children. For sale by Armand Hawkins, 196½ Canal street, New Orleans.

This forms one of P. Blakiston, Son & Co.'s *octavo series* of standard medical works. The low price of the book, coupled with its real intrinsic merit, entitles it to a place in the library of every physician, as a ready reference to that familiar ailment, headache, so frequently met with in every day practice and often so difficult to relieve by ordinary modes of treatment.

Dr. Day's classification of headaches is at once simple and satisfactory, and though the varieties into which he divides headaches might by some be considered too numerous and unnecessarily multiplied, still, by careful perusal, any impartial reader will be convinced that their study is facilitated, and their nature, origin and treatment much more clearly developed.

Every part of the book shows great research and untiring industry in plainly stating all facts bearing upon this subject, and making such inductions as are warranted by the advanced theories and experimental proofs of their correctness established by the most recent investigations. We especially call attention to the chapters on the headache of cerebral anæmia, dyspeptic or bilious headache, headache from exhaustion and the headache of advanced life and those of childhood and early life. One fault will no doubt be found by many in the voluminous array of therapeutical formulæ with which our author closes his work. This prolix and somewhat unnecessary multiplication of favorite prescriptions will, no doubt, shock the many fashionable skeptics of the present day, but after a careful examination not a few will be found of real practical utility in fulfilling the indications required.

In conclusion we can safely say that it is the best monograph on headaches with which we are acquainted, and will fully repay careful perusal.

The Systematic Treatment of Nerve Prostration and Hysteria, by W. S. Playfair, M. D., F. R. C. P., Professor of Obstetric Medicine in King's College, etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1883; cloth, pp. 111. For sale in New Orleans by Armand Hawkins. [Price, $1.]

This little work by Prof. Playfair is devoted to the advocacy of the treatment of neurasthenic diseases by Dr. S. Weir Mitchell's system. That much can be accomplished by this method in this class of cases is beyond doubt, but the treatment to be effective must be systematically and faithfully carried out, and does not depend upon massage alone, for as the author says: "This is only one of the many agencies brought to bear on the patient, the combination of which produces so remarkable an effect." Isolation and removal from unwholesome domestic surroundings are insisted upon, as being absolutely essential to the cure of these cases.

The plan of treatment in brief is as follows:

1. "The removal of the patient from unhealthy home influences and placing her at absolute rest.

2. "The production of muscular waste and the consequent possibility of assimilating food by what have been called 'mechanical tonics,' viz.: prolonged muscular movement and massage of the muscles, by a trained shampooer, and muscular contractions produced by electricity.

3. "Supplying the waste so produced by regular feeding, so that the whole system, and the nervous system in particular, shall be nourished in spite of the patient."

Details are given of the manner of carrying out the treatment, to which are added the histories of a number of cases illustrative of the method and its results.

The book is well worth perusal and will repay any one for the time spent in its careful study, inasmuch as it will lead to a better understanding of the management of those *bétes noirs* of the physician, nerve prostration and hysteria.

An appendix contains a description of the method of performing massage, which is clear and concise, and will be of great assistance where the services of a trained manipulator cannot be obtained.

The Functions and Disorders of the Reproductive Organs Considered in their Physical, Moral and Social Relations, by William Acton, M. R. C. S., Late Surgeon to Islington Dispensary, etc., etc. Sixth Edition. Philadelphia: P. Blakiston, Son & Co., 1883. New Orleans: A. Hawkins. [Price, $2.]

We are all more or less acquainted with this work of Mr. Acton. It is written not alone for the physician, but for the instruction of the laity as well, and the subject, although a delicate one, is handled fearlessly and boldly, from a truly scientific basis.

The impositions of quackery and the harm accomplished thereby are so manifold that something of this kind is needed to thoroughly inform men of their true sexual functions and relations, and it would be well fer every youth and man to profit by the opportunity afforded in this work, so that he might be saved from the villainy of those who seek to impose upon his credulity. For, it is a lamentable fact that we cannot pick up a daily newspaper which does not contain advertisements appealing to this credulity, magnifying conditions which are often of slight moment, and which, by exciting the fears of the victims, too often end in their being injured in health as well as in purse.

The work before us teaches the honest and intelligent physician how to treat cases of functional derangements when they do in reality exist, and is full of information and good advice to all.

Society owes a debt of gratitude to Mr. Acton for his zeal in the effort to rescue individuals from the hands of quacks, and to give them a better idea of the functions of the sexual organs and their disorders.

The subject matter is treated of in a wise, calm and dispassionate manner and every detail is carefully considered, and the work will undoubtedly attain the object hoped for by the author, "to exert some good practical influence upon public health and morals."

The Physician Himself and what he should Add to his Scientific Acquirements. By D. W Cathell, M. D., etc. Third edition; Baltimore: Cushings & Baily, 1883.

The appreciation of this work by the profession of the country is exemplified by the rapid sale of 6000 copies in a few months and the consequent necessity for a new edition. We can only repeat what we said in a former number of this journal in regard to the value of Prof. Cathell's work.

We notice no changes of any importance and would suggest to all who have not yet procured a copy of the book to do so in the interest not only of themselves but of the profession at large as well.

Vision: Its Optical Defects and the Adaptation of Spectacles. By C. S. Fenner, M. D. Second Edition. Revised with Additions by the Author. Philadelphia: P. Blakiston, Son & Co., 1883. New Orleans: Armand Hawkins. [Price, $3 50.]

The work before us is a good type of the majority of books now issuing from the medical press. It makes no pretense to originality. It is merely a comfortable and compendious compilation. Printing has become so cheap, publishers so accommodating that even though we may be unable to add anything of our own to the sum of medical knowledge, we may still hope, by the careful collection and skillful arrangement of the ideas of abler predecessors, to produce one of these neat and comely volumes. These books have no *raison d'être.* None of the readers to whom Dr. Fenner's book is addressed stand in need of it. Such men as Herschel, Lommel, Tyndale, Donders, Soelberg, Wells, Giraud, Teulon, Le Conte and Morton have already supplied the specialist, the student and the general reader with suitable works upon these subjects.

So important do we conceive it to be that the censors of the medical press should use every endeavor to check this superabundant production of needless books, that we should have deemed it our duty to write at greater length, and with all the severity that in us lay, had we not been disarmed by Dr. Fenner's simple and, therefore, pathetic allusion to his own blind-

ness, and the publishers' short announcement of the author's recent death.

In praise we may say that the author's style is pleasing, and as a rule lucid. Here and there we find an unexpected turbidity, all the more remarkable for the fact that in most cases a single sentence would have completed the explanation. For instance, on page 20 a simple figure and a few words would have demonstrated to the student the cause of penumbræ.

To conclude in a word, the book is good, but unnecessary.

H. D. B.

A System of Human Anatomy including its Medical and Surgical Relations. By Harrison Allen, M. D., Professor of Physiology in the University of Pennsylvania, etc., etc., with a chapter on Histology by E. O. Shakspeare, M. D., Opthalmologist to the Philadelphia Hospital. To be completed in six sections. Illustrated with 380 figures on 109 plates, Philadelphia: Henry C. Lea's Son & Co. [For sale by Armand Hawkins, 196½ Canal street, New Orleans.]

Section II. Bones and Joints.

Section III. Muscles and Fascial.

The favorable notice of this work which we gave of section I, in a former number, is equally merited by the two sections before us.

Section II. *Bones and Joints.* This section is remarkable for clearness of type. The plates are accurate and distinct; descriptions full, precise and minute; apart from the disadvantage of viewing each bone on the same plane, the result is as satisfactory as could possibly be attained, by delineations on paper with all important parts labelled with accuracy.

The remarks on development, growth, nature of structure, etc., are both interesting and useful.

The insertion and origin of muscles, their line of action, the movements produced with the effects thus obtained, the liability to diseases, with the results of various pathological conditions incident to peculiarities of structure, etc., present an array of facts peculiarly instructive and invaluable. In fact we are at a loss to conceive how descriptive anatomy could be

rendered more attractive, and complete, than in the work before us. The whole is so concise and full as to take up only 107 pages.

The 36 pages devoted to the anatomical description, nomenclature, structure, nature and extent of motion of every *joint* in the human body, give undoubted evidence of the skill, industry and research of the author. A most interesting addition, and one to be considered of paramount utility to the student of surgery, is that portion relating to the different susceptibilities of each joint to accident and disease.

In fact this whole section fully reaches the enlarged scope promised, of presenting all the facts of human anatomy in connection with their bearing upon practice, combining necessarily the physiological with the anatomical.

Section III—*Muscles* and *Fasciæ*. In the section before us we find a complete description of every muscle in the body.

The remarks on the origin, insertion, functions, and nerve-supply are interesting and instructive. As to the plates themselves we are sorry to say we are disappointed in their artistic design and execution. Some plates are really artistic and creditable, but many are coarse, heavy and out of proportion.

The illustrations of the anatomy of inguinal and femoral hernia are defective to a degree, being entirely too small and indistinct; they fail to depict with clearness the relative position of the many important parts represented.

When we examine the cuts of the anatomy of the perineum we cannot help feeling disappointed in their meagreness; compare these with the admirable plates found in Henry Savage's work and the difference becomes so apparent as to be painful. The satisfactory portrayal of *fasciæ* (at all times difficult) in the plates before us, remains conspicuously deficient. The physiological portion of the work might be made much more *extended*, elaborating to a *greater* degree and with far more completeness the advanced views of recent authors, thereby greatly increasing its value.

Reports of Proceedings of Societies

MINUTES OF PROCEEDINGS OF THE FIFTH ANNUAL MEETING OF THE LOUISIANA STATE MEDICAL SOCIETY HELD AT BOGEL'S HALL, SHREVEPORT, LA., APRIL 4, 5 and 6, 1883.

First Day's Proceedings.

The Society was called to order by the President, A. A. Lyon, M. D., of Shreveport, at 11 o'clock. Twenty-one members present: Dr. C. J. Bickham of New Orleans, announced that Dr. L. F. Salomon, the Recording Secretary, would not be present and moved that Dr. P. B. McCutchon of New Orleans, be elected temporary Secretary. Carried.

Prayer was offered by W. C. Dunlap, D. D., of the Presbyterian Church.

Dr. T. G. Ford, Chairman of the Arrangements Committee, then introduced Hon. Andrew Currie, Mayor of Shreveport, who in a few appropriate remarks welcomed the delegates on behalf of the citizens.

After which, Dr. T. G. Ford, introduced Dr. T. J. Allen, President of the Shreveport Medical Society, who welcomed the delegates on behalf of the Shreveport Medical Society.

Dr. C. J. Bickham moved that the reading of the minutes of the last meeting be dispensed with, they having been published in pamphlet form. Carried.

Dr. Chaillé moved a suspension of the rules, so that the Secretary could get the names of the members present, and that each member should hand in his name and parish to the Secretary. Carried.

The following members registered their names:

Allen, T. J., of Shreveport; Ashton, W. W., Shreveport; Bemiss, S. M., Bickham, C. J., New Orleans; Billiu, D. H. Booth, A., Shreveport; Chaillé, S. E., New Orleans; Clay, D.,

M., Shreveport; Davidson, J. P., New Orleans; Day, R. H., Baton Rouge; Diliard, H. T., Eagan, J. C., Ford, T. G., Shreveport; Fox, D. R., Plaquemines parish; Gray, R. A., Hilliard, W., Lyon, A. A., Shreveport; McCutchon, P. B., New Orleans; Schuppert, M., New Orleans; Scott, J. J., Shreveport; Scruggs, S. O., Cloutierville, Natchitoches parish.

Twenty-one members (21).

Credentials from the following delegates were received L. H. Fisher, J. W. Allen, Shreveport Medical Society.

Dr. Fox, Plaquemine Medical Society.

J. P. Davidson, C. J. Bickham, M. Schuppert, P. B. Mc Cutchon, New Orleans Parish Medical Society.

T. G. Newton, Morehouse Parish Medical Society.

Reading of Communications.

The Secretary read a communication from Dr. A. B. Snell of Bayou Goula, Iberville parish, suggesting the formation of a Tri-State Medical Society of the States of Louisiana, Texas, and Arkansas, similar to that now existing between the States of Kentucky, Indiana and Illinois.

Tabled subject to call.

Also a communication from Dr. J. D. Hammonds, of Lind Grove, Morehouse parish, suggesting Monroe as the place for the next meeting. Tabled, subject to call.

From Dr. J. E. Duffel, of Donaldsonville, Ascension parish, suggesting the formation of Parish Boards of Health, etc.

From Louisiana State Pharmaceutical Association, through President Jas. S. Thibodeaux, with reference to a proposed "Pharmacy law."

On motion of Dr. S. E. Chaillé, these were referred to the Committee on State Medicine and Legislation.

Proposals for Membership.

The following names were proposed:

Allen, J. W., Shreveport; Armstrong, R. L., Jr., Pleasant Hill, DeSoto parish; Baird, W. J., Collinsburg, Bossier parish; Benson, R. F., Mansfield, DeSoto parish; Buck, W. P., Evergreen, Avoyelles parish; Calhoun, T. L., Coty, H. C., Shreve-

port; Crain, P., Compte, Natchitoches parish; Dickson, W. L., Dickson's Cross Roads, Bossier parish; Dunn, J. A., Cotile, Rapides parish; Dunn, M. A., Montgomery, Grant parish; Easly, B. A., Cotile; Egan, W. L., Fisher, L. H., Shreveport; Formento, F., New Orleans; Gibbs, R. T., Mansfield; Griffin, J. F., Cloutierville, Natchitoches parish; Harrison, T. J., Montgomery; Milling, J. S., Dickson's Cross Roads; Mosely, W. X., Keachi, DeSoto parish; Newton, I. J., Jr., Bastrop, Morehouse parish; Owens, C. D., Homesville, Avoyelles parish; Sutherlin, W. K., Mansfield; Turner, W. M., Shreveport; Walker, S. F., Mansfield; Walters, G. W., Collinsburg; Wise, B., Greenwood, Caddo parish (27).

Upon motion of Dr. S. E. Chaillé, duly seconded, it was moved and carried that the rules be suspended, and that the above applicants be unanimously elected.

Upon the question being put, the above named gentlemen were elected to membership.

It was moved and carried that the members present comply with Sec. 1, Art. III., of the By-Laws before participating in the proceedings.

Dr. Thomas J. Allen moved that the following dispatch be sent to the Kentucky State Medical Society, now in session at Louisville, which was unanimously carried:

SHREVEPORT, LA., April 4, 1883.

To the President of the Kentucky State Medical Society:

The Louisiana State Medical Society, now in session in this city, sends fraternal greetings to its brethren of the Kentucky State Medical Society at Louisville, and trusts that they stand shoulder to shoulder with it in upholding the time honored code of ethics of the American Medical Association.

A. A. LYON,
President La. State Med. Society.

The Secretary forwarded the dispatch.

Dr. R. A. Gray moved that the Rev. W. T. D. Dalzell, D. D., of the Episcopal church, be elected an honorary member. Unanimously carried.

Dr. Dalzell returned thanks for the honor conferred.

Dr. S. E. Chaillé moved that all members having reports or essays to be read be requested to hand them to Dr. W. Hilliard, also giving the time that each paper would require. Carried.

Dr. A. A. Lyon, Chairman of the Committee on Organization, requested Vice-President J. P. Davidson to take the chair, and read the report of the committee. Dr. S. O. Scruggs moved that the report be accepted. Dr. Chaillé offered as an amendment, that the report be received and be referred to a special committee of three. Dr. S. O. Scruggs accepted the amendment, and as amended the motion prevailed. Dr. Davidson appointed as the committee, Dr. S. E. Chaillé, chairman, Dr. T. J. Allen, Dr. R. H. Day.

A motion was carried, under a suspension of the rules, that the morning session commence daily at ten instead of eleven o'clock.

The Secretary read the report of the Corresponding Secretary, Dr. S. S. Herrick, of New Orleans, who was absent. The report shows there are fifteen parish societies, ten of which are in active operation. Total number of physicians in the State, 1042; regular, 792; irregular, 190; doubtful, 60. The report was accepted.

Dr. C. J. Bickham made a statement for the Treasurer, Dr. Geo. K. Pratt, of New Orleans, stating that the society was in debt to him in the sum of fifteen dollars.

The resignation of Dr. L. F. Salomon, as secretary, was read and accepted. Dr. T. G. Ford stated that the committee of arrangements would be ready to report at the evening session.

On motion of Dr. Chaillé the society adjourned till 7:30 P. M.

EVENING SESSION.

The society was called to order by the President, A. A. Lyon, M. D., at 7:45 P. M.

Dr. T. G. Ford, chairman of committee of arrangements, made his report, which was accepted.

After which Dr. A. A. Lyon addressed the society.

Dr. A. A. Lyon introduced Rev. W. T. D. Dalzell, D. D., who delivered the annual oration.

Vice President J. P. Davidson moved that the thanks of the society be tendered Rev. W. T. D. Dalzell, D. D., for his able and interesting address. Unanimously carried.

On motion the society adjourned to meet on Thursday at 10 A. M.

Adopted at evening session, April 5.

P. B. McCUTCHON, M. D.,
Temporary Recording Secretary.

SECOND DAY'S PROCEEDINGS.

THURSDAY, April 5, 1883.

The Society was called to order by the President, Dr. A. A. Lyon, at 10 A. M.

Prayer was offered by Rev. C. F. Evans, D. D., of the Methodist Church.

The Secretary read an invitation from the Shreveport "Cotton Exchange," and "Harmony Club," tendering the "use and privileges" of their rooms to the Louisiana State Medical Society during its stay in the city.

Dr. Chaillé moved that they be accepted, and the thanks of the Society be returned for the same.—Carried.

The following telegram from the Kentucky State Medical Society, was read:

LOUISVILLE, KY., April 4th, 1883.

To the President of the La. State Medical Society:

The Kentucky State Medical Society cordially reciprocates the greeting of their brethren of the Louisiana State Medical Society, and emphatically endorses the sentiment of allegiance to the Code, and devotion to the honor and dignity of American Medicine. L. S. McMURTRY, *Sec'y.*

Telegrams from Dr. J. W. Dupree, Secretary of the Baton Rouge Medical Association, extending an invitation on behalf of the Baton Rouge Medical Association to hold the next meeting of the Louisiana State Medical Society at Baton

Rouge, and J. S. Charotte, Mayor of Baton Rouge, extending the same invitation on behalf of its citizens, were read.

These telegrams were tabled subject to call.

The election of members being in order under a suspension of the rules, the following gentlemen were elected:

Allison, L., Kingston, DeSoto parish; Armstrong, R. L., Sr., Pleasant Hill, DeSoto parish; Clarke, A. F., Shreveport; Courtney F., Grand Carré, DeSoto parish; Moss, J. R., Robson, Caddo parish; Powell, M. B., Natchitoches, Natchitoches parish; Roberts, A. V., Mansfield; Tillinghost, E. S., Mooreingport, Caddo parish; Wise, G. A., Benton, Bossier parish.

Dr. R. H. Day stated that on account of the haste in adjourning last evening, the thanks of the Society were not expressed to the President for his interesting address, and he now moved, that the thanks of this Society be expressed to President A. A. Lyon, for the same; Dr. J. P. Davidson, Vice-President, seconded the motion, and requested that the Society express its thanks by a rising vote. Carried. Dr. Lyon thanked the Society for their expressed appreciation of his efforts.

Dr. Chaillé moved that a committee of five be appointed as "Nominating Committee," to facilitate the election of officers. Dr. Bemiss moved as an amendment, that this committee be composed of the members from each parish here represented. Upon the vote being taken, the motion as amended, prevailed.

Dr. C. D. Owens, of Avoyelles parish, moved that the members from each parish select a member to serve on the committee, and that a recess be taken to allow the parish delegates to make the selection. Carried.

When the Society was called to order, the following names were handed in and announced by the President as the committee to nominate officers for the ensuing year, to be voted for by the Society.

Dr. S. M. Bemiss, Orleans parish; Dr. D. R. Fox, Plaquemines parish; Dr. R. H. Day, East Baton Rouge; Dr. Thos. J. Allen, Caddo; Dr. J. S. Milling, Bossier parish; Dr. C. D. Owens, Avoyelles parish; Dr. S. F. Walker, DeSoto parish; Dr. M. A. Dunn, Grant parish; Dr. I. J. Newton, Jr., More-

house parish; Dr. J. F. Griffin, Natchitoches parish; Dr. J. A. Dunn, Rapides parish.

Dr. Chaillé, Chairman of the special Committee to take into consideration the report of the Committee on Organization read the following:

Report of Drs. Chaillé, T. J. Allen and R. H. Day, on the Annual Report of the Committee on Organization, Chairman, Dr. A. A. Lyon.

Dr. Lyon's report contains four recommendations, viz: First. That some steps be taken to secure the prompt organization of affiliating parish societies, and as a means to this end, that copies of the Constitution of the State Society, together with the recommended Constitution for Parish Societies, be published in sufficient numbers for distribution.

Resolved, That this recommendation be adopted as far as the funds of the Society may permit, and as may be consistent with other publications, which may be required by the Society. Second—It is recommended that medical societies shall not adopt a list of fees, obligatory on members.

Resolved, That the Louisiana State Medical Society has neither adopted nor proposed to adopt any such course, and that action on this matter is left to each parish or local society.

Third—It is recommended that the annual fee of $5 for permanent members should be reduced.

WHEREAS, any reputable physician in Louisiana can now become a member of a parish society, and thereafter paying only $1 per annum to the State Society; be it

Resolved, That it is inexpedient to adopt this recommendation.

Fourth—It is recommended that the society should elect the most efficient officers without regard to geographical or other considerations.

Respecting this recommendation this committee concurs therein, believing, however, that the Vice Presidents should be, as heretofore, chosen from Congressional districts and charged with the special duty of organizing parish societies in the parishes constituting said districts.

Dr. J. F. Griffin, of Natchitoches, moved that this report be received and adopted.

Dr. A. R. Booth moved as an amendment that each recommendation be voted upon seriatim. Carried.

On motion of Dr. Booth the first resolution was adopted. The other three resolutions were also adopted.

Dr. Griffin then renewed his motion to receive and adopt the report as a whole. Carried.

Dr. Chaillé, chairman of the committee on State Medicine and Legislation, read his report, which was received and adopted as a whole. Dr. Chaillé then read several resolutions which would facilitate the execution of the recommendations suggested.

Dr. C. D. Owens moved that the resolutions be received and adopted. Unanimously carried.

Dr. Chaillè also read a communication from Dr. J. E. Duffel, about the formation of local boards of health, etc.; and also one from James Thibodeaux, concerning a pharmacy law, etc.

Dr. J. C. Eagan moved that these communications be referred to the committee on State medicine and legislation, with power to act. Carried.

Dr. R. H. Day offered the following preamble and resolutions which were adopted :

WHEREAS, our Treasurer, Dr. Geo. K. Pratt, has failed to make his report to this body at its present session, as required by the regulations, leaving it in total ignorance of the amount of moneys received and expended by him, therefore, be it

Resolved, That the Treasurer is hereby requested to make out his written report as early as possible, and transmit it to the Recording Secretary.

Dr. Bemiss read an "Abstract from the Report of the Yellow Fever Epidemic in La. in 1878."

On motion of Dr. D. R. Fox, Dr. Bemiss' paper was referred to the Publishing Committee.

Dr. W. W. Ashton read an essay on "Alcohol: Its Uses and Abuses."

On motion of Dr. J. C. Egan, the essay of Dr. Ashton was referred to the Publishing Committee.

On motion the Society adjourned to 7.30 P. M.

EVENING SESSION.

The Society was called to order at 7.45.

The minutes of the first day's proceedings were read and adopted.

Report of Committee on Nominations.

Dr. Bemiss, the Chairman, reported as follows, stating that the Committee had unanimously adopted the report:

For President: Dr. J. P. Davidson, New Orleans.

For Vice Presidents:

1st	Congressional	District.	Dr. D. R. Fox, Plaquemines parish.
2nd	"	"	Dr. J. C. Bickham, Orleans parish.
3rd	"	"	Dr. C. M. Smith, Franklin, St. Mary's parish.
4th	"	"	Dr. T. J. Allen, Caddo parish.
5th	"	"	Dr. I. J. Newton, Morehouse parish.
6th	"	"	Dr. R. H. Day, East Baton Rouge parish.

Recording Secretary: Dr. P. B. McCutchon, Orleans.

Corresponding Secretary: Dr. S. S. Herrick, Orleans.

Treasurer: Dr. F. W. Parham, Orleans.

The Committee recommend Baton Rouge as the place for the next meeting, and the 2nd Tuesday in May, 1884, as the time.

Dr. Challié moved that the report be divided, and a vote, first, be taken for the officers, and then for a place of meeting. Carried.

Dr. Challié then moved that the officers recommended by the committee be elected unanimously. Carried.

Dr. Scruggs moved, that Baton Rouge be selected as the place of meeting.

Dr. R. L. Armstrong, Sr., suggested New Orleans.

Upon the question being put Baton Rouge was selected as the place of meeting.

Some discussion ensued as to the time of meeting, and finally a motion by Dr. Chaillé fixing the 22nd day of May, 1884, or such a day as the President may determine for the best interests of the Society, prevailed.

An opportunity was here offered the President elect, Dr. J.

P. Davidson, of thanking the Society for the honor conferred, which the Doctor did in feeling remarks.

Dr. Chaillé took occasion to thank the Society, on behalf of the medical fraternity of New Orleans, for the honor conferred upon them by selecting one of their number as President.

Dr. S. O. Scruggs offered the following resolutions:

Resolved, That the Vice-Presidents of the Louisiana State Medical Society, shall appoint a committee of five physicians from each congressional district whose duty it shall be to urge upon the representative of each parish the great necessity there is for the passage of a law which will not only protect the interests of the physicians of the State, but the great interests of its citizens.

Further, That the Vice-Presidents shall report to the Chairman of the Committee on State Medicine and Legislation as early as practicable the results of their efforts in behalf of the objects of this resolution.

Dr. R. A. Gray, B. M. Clay, C. J. Bickham, S. O. Scruggs and S. E. Chaillé (who offered amendments accepted by Dr. Scruggs) took part in the discussion.

The above resolutions were finally adopted.

Dr. Day read an essay on the "Surgical Treatment of Wounds."

Discussion by Drs. Clay and Day.

On motion of Dr. W. W. Ashton, Dr. Day's essay was referred to the publishing committee.

Dr. Bickham read a paper by Dr. S. S. Herrick, on "Some Debatable Points of Small-Pox."

On motion of Dr. Bemiss the discussion on the above paper was postponed until Friday morning. Dr. Clay stated that there were several papers to be read by physicians from abroad and he would yield his hour as fixed in Friday's programme to Dr. M. Schuppert, if there was no objection. There being no objection, the President so ordered. Dr. Billiu read an essay on "Perimetric Inflammation in the Non-Puerperal Woman." On motion of Dr. Scruggs, Dr. Billiu's paper was referred to the publishing committee. Dr. Scruggs made a verbal report of a case of diabetes.

Several members took part in the discussion.

The Morehouse Parish Medical Society, through its delegate, Dr. I. J. Newton, Jr., presented its application for admission to this Society as an affiliating society.

It was moved and seconded that the application be granted. Carried.

On motion of Dr. T. G. Ford the society adjourned to meet on Friday morning at 10 o'clock.

Adopted at morning session, April 6th, 1883.

P. B. McCUTCHON, M. D.,
Recording Secretary.

THIRD DAY'S PROCEEDINGS.

Friday, April 6, 1882.

The Society was called to order at 10:30 A. M., Dr. A. A. Lyon, presiding.

Prayer by Rev. J. A. Hackett, of Baptist Church.

Minutes were read and approved.

Communications were read from Dr. J. H. Ferguson, representing Tilden & Co., Manufacturing Pharmacists, N. Y., and from Aug. J. Bogel, representing the Mallinkrodt Chemical Works, St. Louis.

Both firms had displays in the hall where the Society met.

Dr. J. P. Davidson, the newly elected President, announced the following standing committees:

1. Committees of Arrangements—Drs. J. W. Dupree, R. H. Day, T. J. Buffington.

2. Committee on Organization—J. P. Davidson, Chairman, D. R. Fox, C. J. Bickham, C. M. Smith, R. H. Day, T. J. Allen, I. J. Newton, Jr.

3. Committee on Necrology—The Vice-Presidents.

4. Committee on State Medicine and Legislation—S. E. Chaillé, Chairman, J. P. Davidson, J. B. Wilkinson, P. B. McCutchon, J. W. Dupree, S. S. Herrick, R. A. Gray, F. W. Parham.

5. Committee on Reports and Essays—L. F. Salomon, Chairman, T. G. Ford, S. M. Bemiss, R. T. Gibbs, J. D. Hammonds.

6. Committee on Publication—W. H. Watkins, Chairman, S. S. Herrick, P. B. McCutchon, F. W. Parham, M. R. Richard.

7. Judiciary Committee—A. A. Lyon, Chairman, J. B. Wilkerson, T. G. Richardson, A. B. Snell, S. O. Scruggs, O. P. Langworthy.

Dr. Griffin offered the following resolution:

Resolved, That this Society, recognizing the importance to the family of each member in the event of his death, of a provision being made for them in cases of need, recommend that a Mutual Aid Association be formed upon the assessment plan, under the supervision of the Louisiana State Medical Society. For the purpose of carrying out the plan, the Chair be authorized to appoint a committee of five members to draft and recommend a plan and Constitution to be presented at this meeting.

Dr. Bemiss objected to the resolution thinking it was out of the line of business. Dr. Day agreed with Dr. Bemiss. After some further discussion, participated in by Drs. Booth and Griffin, the resolution, on motion of Dr. Bemiss, was tabled.

Dr. Bemiss offered the following preamble and resolution which was seconded by Dr. J. C. Egan and unanimously adopted.

WHEREAS, the facilities of transportation now existing and in process of construction will shortly cause the Charity Hospital of New Orleans, to become the receptacle for the indigent sick of a large portion of the State, therefore be it

Resolved, That this Society express its approval of the efforts to enlarge the accommodation for the sick in that hospital and pledge its encouragement and aid in the futherance of that purpose.

Under a supension of rules, the following were elected members by acclamation: Dr. A. H. Herring, Redland, Bossier parish; Dr. Jas. D. Wilie, Caddo parish, postoffice, Centennial, Texas.

Dr. Chaillé spoke of the great success of the Alabama State Medical Society and the cause of its success. He thought if the Louisiana Society would adopt the same plan, it would meet with the same success. The great difficulty he said was

the lack of funds to publish and distribute papers of general importance to the fraternity and people.

Dr. Chaillé then moved that each member of the Society obligate himself to pay ten dollars ($10) per annum, and at the same time obligate himself to attend its sessions at least once in three years. Seconded by Dr. A. R. Booth. Dr. T. G. Allen favored the motion, but suggested as an amendment, that the subject be divided. When put to a vote, viz: (1) Those who obligate themselves to pay ten dollars ($10) per annum and attend the meetings of the Society once in three years—Ashton W. W., Baird W. J., Bemiss S. M., Benson R. F., Bickham C. J., Booth A. R., Buck W. P., Chaillé S. E., Clay D. M., Crain P., Davidson J. P., Dickson W. L., Dunn J. A., Dunn M. A., Egan W. L., Fox D. R., Harrison T. J.; Hillard W., Mosely W. X., Newton I. J., Jr., Schuppert M., Walters G. W.—22.

For obligating to pay ten dollars ($10) annually for perpetuating this Society: Allen T. J., Alison L., Billin D. H., Clarke A. F., Dillard H. F., Egan J. C., Lyon A A., Moss J. R., Scott J. J., Turner W. M., Wise G. A., Wylie J. D.—12.

Dr. Bemiss offered the following resolutions, which were adopted and referred, as stated therein—

Resolved, That the pledge given by thirty-four members at the present session, shall mature at the present session.

Resolved, That at the next session (1884), some changes should be made in the Constitution of this Society, conferring special powers or privileges upon such members as may fully redeem their pledges annually and perpetually.

Resolved further, That these resolutions be referred to the Standing Committee on Organization for consideration and action.

Dr. M. Schuppert read a paper entitled "Anti-Vaccination," which was referred to the "Publishing Committee," but the Doctor objected, stating that if the Society wished it published they could order it by vote—He refused to have it referred to the "Publishing Committee," which consisted of five members.

Dr. Bemiss discussed the paper, stating that he was a firm believer in vaccination and re-vaccination.

At the conclusion of Dr. Bemiss' remarks, he introduced the following resolutions, which were adopted.

Resolved, That this Society emphatically affirms its strong confidence in the efficiency of vaccinations and re-vaccinations as the surest and only practical means of preventing the spread of small-pox.

WHEREAS, This Society is informed that it is the practice of one or more practitioners in this State to inocculate human subjects with lymph or pus taken from small-pox patients, previously mixing it with milk or cream, therefore be it

Resolved, That the practice of inocculating small-pox by mixing any product whatever from the body of a small-pox patient with milk, cream, butter or any fluid obtained from the cow, is productive of no modification, beyond that of direct inocculation from one person to another.

It does not deprive the person thus inocculated of that power to communicate the disease through the atmosphere which natural small-pox possesses and is therefore dangerous to the public health.

Dr. W. J. Baird introduced the following resolutions which were adopted and referred to the Committee on State Medicine and Legislation.

Resolved, That it is the opinion of this Society that all persons, whether male or female, practicing obstetrics or midwifery, should be required by law to have the same kind of preparation and the same evidence of such preparation as is now required of physicians practicing the other branches of the medical profession.

Resolved, That the Committee on State Medicine should consider the propriety of preparing for presentation to the next session of the Legislature of Louisiana a proper bill having for its object the carrying out of the purpose of the foregoing resolution, and to urge the passage of such a bill through the Legislature.

On motion of Dr. W. W. Ashton the Society adjourned till 6:30 P. M.

EVENING SESSION.

Society called to order at 7 P. M., by Dr. A. A. Lyon, president.

Dr. D. R. Fox read a paper on Health Ordinances, etc.

On motion of Dr. Bickham, Dr. Fox's paper was referred to the committee on State Medicine and Legislation.

Dr. S. O. Scruggs introduced the following preamble and resolutions in regard to the death of Dr. Warren Stone, Jr., prefacing them with a few eulogistic remarks.

WHEREAS, Death, that busy archer with unseen quiver and arrow has invaded the dominion of medicine and has sent to that undiscovered country from whose bourne no traveler returns, Dr. Warren Stone, Jr., the rising surgeon, the eminent physician, the true gentleman, the high-toned man of honor, the once breathing impersonation of charity, thus exhibiting to the world that the unstained mantle of a noble sire had fallen upon a noble son; be it therefore

Resolved, That in the death of Dr. Warren Stone, Jr., the medical profession has lost one of its brightest and noblest ornaments, and society an exalted citizen.

Resolved, That we, his confréres, mourn the loss of one whose life was so full of promise, and who, although comparatively young in years, already had thrown over the literature of his chosen profession the electric light of his genius; and when the historian, with appointed pen, shall come to write the history of medicine in Louisiana, whilst twining the laurel and the cypress, will sigh around the melancholy page and leave a garland of immortal homage lingering about the record of his death.

Resolved, That a copy of this preamble and resolutions be sent to the widow of our deceased brother and that they be spread upon the records of this Society. Adopted.

Dr. D. M. Clay read a paper, "Lacerations of the Cervix Uteri—Causes, Pathology, Diagnosis and Treatment."

On motion of Dr. C. J. Bickham, the thanks of the Society were tendered to Dr. Clay for his interesting paper, and it was referred to the Publishing Committee.

The Secretary read a paper on "Contagion: its Nature and

Seat," by Dr. Chas. Hardy (who was absent), of St. Laundry parish.

On motion of Dr. Ashton, it was referred to the Publishing Committee.

A communication from Dr. J. S. Meng, of Concordia, was also read by the Secretary.

Dr. Ashton called attention to Dr. A. B. Snell's communication, which was called up, and on motion of J. C. Egan was referred to the Committee on Organization.

On motion of Dr. J. C. Egan, the paper of Dr. S. S. Herrick, the discussion of which had been postponed, was referred to the Publisming Committee, with a request that it be published, provided the author consented.

Dr. Ashton offered the following which was unanimously adopted:

Resolved, That the thanks of this Society be and are hereby extended to the press of Shreveport, the *Shreveport Daily Standard* and the *Shreveport Daily Times*, for zealous interest manifested in the accounts of our daily proceedings and to the reporters of both journals for active and impartial interest and energy displayed in giving reports of said proceedings to the public through the medium of these valuable journals.

Dr. Bickham offered the following resolutions, which were unanimously adopted:

Resolved, That this Society extend to the Shreveport Medical Society, and the citizens of Shreveport, its high appreciation and its heartfelt thanks for the successful efforts made by them to render the Fifth Annual Session of this Society eminently satisfactory; and for thus infusing new life into the efforts to organize the medical profession, and to secure the co-operation of all the reputable physicians of Louisiana, in wise measures for the good of the public and of the profession.

Resolved, That this Society notes with pleasure in this hall, in which our sessions have been held, the elaborate display of chemicals from the Mallinckrodt Chemical Works, presented under the direction of Mr. A. J. Bogel, druggist and pharmacist, of Shreveport; also, of instruments from Aloe Hernstein & Co. of St. Louis, presented by T. H. Morris & Co., wholesale and retail druggists, also of Shreveport, and of many elegant

pharmaceutical preparations from Tilden & Co., of New York, by J. H. Ferguson, M. D.

Our thanks are also due and extended to Mr. A. J. Bogel, for various courtesies at his hands.

The election of the annual Orator having been omitted in the proper place, it was now taken up.

On motion of Dr. D. R. Fox, Prof. J. W. Nicholson, President of the Louisiana State University at Baton Rouge, was unanimously elected Orator for the next annual meeting of the Society.

On motion of Dr. W. W. Ashton, the President was authorized to appoint delegates to the American Medical Association.

By a vote of the Society, the privilege of thanking the Society for various courtesies, was granted Dr. J. H. Ferguson (who was not a member), representing Tilden & Co., New York.

On motion of Dr. A. R. Booth, the thanks of the Society were tendered to Dr. A. A. Lyon, President, and to Dr. P. B. McCutchon, Secretary, for the satisfactory and impartial manner in which they had fulfilled their duties.

On motion of Dr. J. F. Griffin, the Convention, at 9 o'clock, adjourned till the next regular meeting, to be held at Baton Rouge, in May, 1884.

P. B. McCUTCHON, M. D.,
Recording Secretary.

Annual Commencement of the Medical Department of the University of Louisiana.

The Commencement Excercises of the Medical Department of the University of Louisiana, were held at the Grand Opera House, New Orleans, on Thursday, March 29th, 1883.

The Salutatory Address was delivered by Rt. Rev. Hugh Miller Thompson, D. D.

Dr. Stanhope Jones delivered the valedictory on the part of the class.

The Degree of Doctor of Medicine was conferred upon the following graduates by Hon. Randall Hunt, LL. D., having been recommended for the Degree by the Faculty, through its Dean, Prof. T. G. Richardson, M. D.:

Edward Y. Ames..... La
James C. Baird..... Tex
Junius K. Battle ..... Ala
Edward F. Beall..... La
James M. Bean ..... Tex
Thomas J. Bennett ..... Tex
Philip Bergé..... La
Albert M. Bernstein..... La
Joseph T. B. Berry..... Miss
Winfield S. Berry ..... Miss
Henry H. Beverly..... Tex
William C. Blalock .....Tex
Joseph N. Borg..... La
Edgar W. Brown .....Tex
Fremont W. Burger..... Tex
J. Merry Catching..... Miss
Cornelius L. Catching.. Miss
Charles L. Chaissaignac .. La
Eugene Clark..... La
Lewis W. Cock..... Tex
Augustus C. Connor..... La
John G. Crump ..... Tex
Eli L. Dawson..... Ark
Louis E. Duffel ..... La
Robert H. Eanes..... Tex
Samuel S. Ellzey..... Tex
George J. Friedrichs ..... La
Louis Fourgeaud.. ..... La
Thomas E. Gillespie..... Ark
Franklin J. Gilson ..... Tex
Joel M. Gooch ..... Tex
Franklin J. Gustine..... La
Hugh H. Haralson..... Miss
Charles A. Hall..... La
C. Reginald Hargrove... Tex
George H. J. Hart ..... La
William P. Hough..... La
Chester Jennings..... Ark
Ambrose W. Jones..... La
Stanhope Jones..... La
Buford Larkin ..... Miss
George B. Lawrason..... La
Robert Layton..... .. La
John P. McLendon..... Tex
Henry de Mahy..... La
Huie G. Magee..... La
Frederick J. Mayer..... La
Paul Michinard..... La
Herschel C. Milburn..... La
G. Clinton Mouton ..... La
Francis S. Mudd..... La
Louis A. Murdock..... La
Wm. B. Newland ..... Tex
Frederick N. Ogden..... La
James F. Peek..... Tex
Albert B. Pitts ..... Miss
Bunyan G. Prestridge.... Tex
Garland W. Radford.....Tex
Peter L. Rivers ..... Miss
Philip P Sary ..... La
Charles W. Settoon ..... La
Jesse B. Shelmire..... La
Henry Sicard ..... La
Clarence P. Smith..... La
Thomas W. Styles..... Tex
John S. Thibaut ..... La
David H. Tucker ..... La
Harvey A. J. Watkins.. Miss
Willis C. Weathersby .. Miss
Elton L. Wilson..... Ark
James D. Wilson.. Wisconsin
John N. Willson..... Ark
Braxton Wise..... La
Josias S. Youngkin..... Tex

The following received the Degree of Master in Pharmacy:

Eugene Clark ..... La
John A. Claverie..... La
Ernest Deville..... La
Edwin J. Graner..... La
Adrian Hava ..... La
Francis J. Kearny..... La
George B. Muse..... La
Joseph Wagner..... La

Publications Received.

Vision : Its Optical Defects and the Adaptation of Spectacles By C. S. Fenner, M. D. Second Edition. P. Blakiston, Son & Co., Philadelphia.

The Systematic Treatment of Nerve Prostration and Hysteria. By W. S. Playfair, M. D., F. R. C. S., etc. Henry C. Lea's Son & Co., Philadelphia.

Experimental Pharmacology. By L. Herman. Translated by Robert Meade Smith, M. D., etc. Henry C. Lea's Son & Co., Philadelphia.

The United States Dispensatory, Fifteenth Edition. J. B. Lippincott & Co.

Headaches : Their Causes, Nature and Treatment. By William Henry Day, M. D., etc. P. Blakiston, Son & Co., Philadelphia.

Compend of the Tenth Census of the United States, 1880. Parts I. and II.

Die Anamie, von S. Laache, Christiana, Norway.

Om Bromkalium i Diabetes Mellitus af J. Worm Müller.

Om Oxyhæmoglobin af Svineblood af Jac. G. Otto.

Om Krystalliseret Methæmoglobin of Jac. G. Otto.

Annual Report of the National Board of Health, 1880.

Discours de M. le Dr. Formento, de la Nouvelle Orleans, au Congrés d'Hygiene, Genévre, September, 1882.

Trichinae and Trichinosis. By W. C. W. Glazier, M. D., U. S. M. H. Service.

The Doctorate Address, delivered at the Fortieth Annual Commencement Exercises of the Rush Medical College, Chicago. By Moses Gunn, M. D., LL.D., etc.

Students' Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S.

Labor Among Primitive People. By George J. Engelman, A. M., M. D., etc.

Medical and Surgical History of the War of the Rebellion. Part Third. Surgical Volume. Surgeon General's Office, Washington.

Orthopædic Surgery and Diseases of the Joints. By Lewis A. Sayre, M. D., etc. D. Appleton & Co., New York.

Annual Address before the New York Medico-Chirurgical Society, Nov. 14th, 1882. By the President, Dr. E. P. Fowler.

Meteorological Summary—March.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temperature.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	30.444	58.5	56 1	East.	.....	Mean Barometer,
2	30.336	67.3	63.0	North	.....	Highest Barometer, 30.525.
3	30.352	62 6	40.0	North	.....	Lowest Barometer, 29.613.
4	30.385	56.5	56.3	East.	.....	Monthly Range of Barometer, 00.912.
5	30.198	62.3	69.7	S E.	.....	Mean Temperature, ——.
6	30.044	69.0	79.0	South	.....	Highest Temperature, 80 3
7	30.103	56.2	87.7	North	1 87	Lowest Temperature, 44.0.
8	30.128	50.1	80.7	N. E.	.42	Greatest daily range of Temperature,
9	29.971	57.9	71.7	N. W.	.....	23.0.
10	30.007	61.5	54.7	N. W.	.....	Least daily range of Temperature,
11	30 232	59.5	40.0	North	.....	17.0.
12	30.367	54.8	56.0	East.	.....	Mean of Maximum Temperature, 69.4.
13	30.276	59.7	62 3	East.	.01	Mean of Minimum Temperature 53.7.
14	30.063	65.7	76 0	East.	.....	Mean daily range of Temperature, 15.8.
15	30.041	65.2	69.7	N. W.	.....	Prevailing Direction of Wind. N.
16	30.110	56.8	44.3	East.	.....	Total movement of wind, 5570 miles.
17	30.020	56.2	70.7	N. E.	.....	Highest Velocity of Wind and Direc-
18	29.944	64.7	71.7	South	.....	tion, 38 miles, E.
19	29.838	65.6	82.3	West	.11	Number of Foggy Days, 0.
20	29.972	55.8	47.7	North	.....	Number of Clear Days, 12.
21	30.015	61.5	53.3	South	....	Number of fair days, 10.
22	30.061	60.3	50.7	North	.....	No. of cloudy days on which no rain fell, 4
23	29.943	62.0	63.7	S. E	.....	Total No. of days on which rain fell, 6
24	29.722	60.6	87.7	East	2.60	COMPARATIVE TEMPERATURE.
25	29.751	67.2	66.0	West	.....	1873..... 60.4 | 1878..... 66.4
26	30.055	58.8	59.7	North	....	1874..... 66.2 | 1879..... 64.7
27	30.117	61.1	64.7	South	.....	1875..... 63.5 | 1880..... 65.7
28	30 031	65.3	71.0	South	.....	1876..... 59.9 | 1881..... 59 9
29	29.934	68.5	75.7	South	.....	1877..... 60.7 | 1882..... 67.9
30	29.808	73.1	78.0	South	.....	COMPARATIVE PRECIPITATIONS.
31	29.746	74.5	78.3	S. W.	.....	(Inches and Hundredths.)
Sums.	.....	....	....	East	Tot.	1873..... 5.1 | 1878..... 4.6
Means	30.065	61.7	65.2	South	5.01	1874..... 7.6 | 1879..... 1.2
						1875..... 10.8 | 1880..... 6.7
						1876..... 11.3 | 1881..... 2.75
						1877..... 4.9 | 1882..... 0.92

L. DUNNE, *Pvt., Sig. Corps, U. S. A.*

Mortality in New Orleans from March 24th, 1883, to April 21st, 1883, inclusive.

Week Ending	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
March 24	0	8	16	65	16	179
March 31	0	8	19	69	19	188
April 7	0	4	14	86	8	196
April 14	0	6	18	77	8	175
April 21	0	2	10	46	8	153
Total	0	28	77	343	59	891

NEW ORLEANS
MEDICAL AND SURGICAL JOURNAL.

JUNE, 1883.

ORIGINAL PAPERS.

Inundations in Louisiana—Their Influence on Health.

BY STANFORD E. CHAILLÉ, A. M., M. D.,

Prof. Physiology and Path. Anatomy, Medical Department, University La., etc.

[Read before the Orleans Parish Medical Society, April 30, 1883.]

In the July number, 1882, of the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, I published an article on the "Inundations of New Orleans and their Influence on its Health." All the evidence which could be gathered from 1718, when New Orleans was founded, was recorded. This evidence, especially in respect to twelve inundations from 1816 to 1881, inclusive, was sufficiently full and satisfactory to justify the general conclusion that the inundations of New Orleans, always partial, "had not influenced unfavorably its mortality, whether by yellow fever, by cholera, by malarial fevers or by diseases generally. On the contrary, the evidence, though imperfect and not fully conclusive, justifies the inference that the deposit and decomposition of filth and any other promoters of disease, which may be due directly to inundations, are more than counter-balanced by the flood, which first covers up the soil, from whence springs so much disease, and then helps to cleanse it. If New Orleans were kept always perfectly clean, which far from the case now was less so in

remoter times, the influence of an overflow might then prove to be comparatively injurious." *

In concluding my article on the indundations of New Orleans, the intention was expressed of compiling an additional article upon the influence on health of overflows in rural districts, and physicians in such districts were solicited to contribute their evidence and information. In addition to this, considerable time and money were expended in distributing copies of this article, together with a circular letter, to some thirty-eight prominent physicians in the twenty-eight (out of the total fifty-nine) parishes in Louisiana, reported to have been more or less inundated by the worst flood on record, that of 1882. This effort, to collect information of public interest and importance, resulted in replies from ten only of the thirty-eight physicians, and respecting six only of the twenty-eight parishes. This fact alone, without citing other evidence to the same effect, will suffice to indicate to the medical profession, both at home and abroad, one of the many impediments encountered in Louisiana by whoever undertakes any research for the common good.

Such evidence as has been procured deserves record, because the best procurable. It is, however, necessarily imperfect, since it consists, for the most part, of opinions, which, even if correct, are founded neither on the requisite statistical data, nor on comparisons between years with and without overflows and between localities inundated and adjacent similar localities not inundated, nor on a due consideration of all attending and variable conditions. The evidence collected is as follows:

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*In the tabular statement of the inundations of New Orleans contained in said article it is correctly stated that on May 11th, 1882, the rear of the 5th District of New Orleans or Algiers, also of Gretna and Gouldsboro, (all opposite New Orleans, on the west bank), were inundated, but it was incorrectly stated that this overflow terminated May 24th. The facts, as subsequently reported by the newspapers were as follows. On June 18th, the overflow still prevailed in the rear of Algiers and Gretna by which not less than 600 persons were afflicted. On August 12th, the water was still within 6 squares of the river front at Gretna, and was two feet deep in some streets. There had been "no unusual amount of sickness since the beginning of the flood." On August 17th it was reported that the water was rapidly receding, and that "there is hardly a house in the rear of town that does not contain one or more persons down with malarial fever." On September 3d, it was reported, respecting Algiers, that "since the fall of the water, immense quantities of dead fish and animal matter had been exposed to the sun, creating a fearful stench, and producing an epidemic of malarial fever." To this correction of an error, it is pertinent to add that a crevasse occurred at Gouldsboro on April 7th, 1883, flooding again the rear of Gretna and Algiers for about one week, as is reported.

OVERFLOWS OF 1844 AND 1850 IN THE COUNTRY.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, Vol. 1, p. 247, Oct. 1844, referring to the extensive overflow in the country, as being at its highest point July 30, 1844, reported as follows:

"Let it be noted as a fact, which we think will be substantiated by the testimony of the profession, that, during the present year, when the Mississippi and its tributaries have been higher than they were almost ever known before, *all the river towns from New Orleans upwards have been unusually healthy whilst the interior and uplands throughout the Southwest have generally been sickly.*"

A newspaper reported, in 1882, to the same effect, as follows:

"Many persons, living now, remember the high water of 1844, it was one of the healthiest years known in the history of the South, no yellow fever [epidemic] that year."

In respect to the overflow in 1850 of extensive rural districts in the Mississippi Valley, Fenner's Southern Medical Reports, p. 754, Vol. II, stated that, "as a general remark, it is worth mentioning that, notwithstanding the extensive inundation of 1850, the year was as healthy, if not more so, than usual." From one part of the country, overflowed in May and June, 1850, Trinity, Catahoula Parish, La., Dr. A. B. Kilpatrick reported, p. 165, Vol. II, Fenner's Southern Medical Reports, as follows: "The year in this section of the country, with the single exception of a transient visitation of the cholera in the month of February, has been as healthy as any year preceding. It has been contended by many, that *the seasons accompanying and immediately succeeding overflows are more healthy than others*, and the physicians in this vicinity contend that such has been the case this year."

PLAQUEMINE PARISH.

Respecting this extreme Southern parish, in which is located the mouth of the Mississippi river, two of the most experienced and competent observers in Louisiana, Dr. J. B. Wil-

kinson, of Myrtle Grove, and Dr. D. R. Fox, of Jesuit's Bend, have furnished the following information:

Dr. Fox reported June 5th, 1882, as follows:

"During my residence in this parish (a period of thirty years) I have witnessed eight overflows, of greater or less extent and produced by various causes. The first inundation of greater extent than ever known, either before or since, occurred in the spring of 1858 about the 25th or 26th of March, in the Parish of Jefferson, a mile or so above Gretna; it was known as the "Bell Crevasse," and was said to have been caused by an old rice flume. The back water reached this place—Jesuit's Bend—which is twenty seven miles from the Bell plantation by the river (though only ten in an air-line) on the 14th of April, and by the 20th, had submerged all the land to the base of the levee; twelve acres from the river, the depth of the water was from eight to fourteen feet. All the plantations on the Barrataria Bayou, which runs about four miles in the rear of the river, were submerged to an average depth of nine feet. The overflow extended down the Mississippi River about forty-five miles, covering an area of about one hundred and eighty square miles. The back water did not begin to subside, nor did the river begin to fall, until the first week in August. While the water covered the land, the health of the neighborhood was remarkably good, but about the 1st of September *malarial fevers prevailed and many cases of pernicious fever occurred;* in November and December an *endemic of malarial pneumonia prevailed* on the Concession plantation, which is twenty miles below New Orleans; the same disease prevailed, though mostly among the negroes, on the Myrtle Grove plantation, twelve miles farther down, and was very fatal.

In 1861, two crevasses occurred in this parish; one on the Fairview plantation, which is on the left bank of the river thirty miles below New Orleans; this was about an acre in width and was caused by a land slide, or caving in of the bank; it was not closed until after the river went down. The other was at Jesuit's Bend, on the right bank of the river, and continued all summer, not being closed until fall. The inundations from

these crevasses were not of great extent, only a few of the adjoining plantations being submerged. *The health of the residents in the vicinity did not seem to be effected by them.* The usual fevers prevailed during the summer, but none of a malignant type.

The fourth crevasse took place in the spring of 1866, the last of March or 1st of April, on the Bouligny plantation, about six miles below Algiers; the cause was not ascertained, but was probably due to excavations by muskrats and crawfish. It was closed by the continued efforts of the planters, with aid from the city, and was remarkable for its depth, being twenty-one feet, the deepest ever known to be closed while the river was at its height. The city engineer, Mr. Demincourt, superintended the work. There was *no perceptible increase of sickness* caused by this inundation.

In 1874, two more crevasses occurred in Plaquemine Parish; one on the Belle Chasse plantation, right bank of the river, twenty miles below the city; the other on the left bank at Greenwood, twenty-three miles below New Orleans. The former was caused by the combined action of very high water, with severe storms of rain and wind upon a new levee; the latter was owing to the levee having been finished just before the spring rise, and to its having been improperly made as it was not faced with plank as is usually done. Both these were closed after the greatest efforts of the planters. The overflow extended only over a few of the adjoining plantations, and *caused no unusual sickness.*

In 1879, the levee in Jesuit's Bend was washed away by severe gales from the South and East, to the extent of 18 or 20 acres; the water covered the road about two feet in depth. After ten days hard work, the planters of the vicinity closed the break, and there was but little damage done by it and *no unusual sickness followed it.*

In 1881, a crevasse, from an imperfect rice flume on the Sarah Plantation, inundated the adjoining plantations for a short time; it was closed in about four weeks. *There was no perceptible increase of sickness.*

In March 1882, there was a break in the levee in the lower part of the Live Oak Plantation, which is on the right bank of the Mississippi, about twenty-three miles below New Orleans. The causes of this crevasse were bad drainage, crawfish and muskrat holes. After various futile attempts to close small breaks in the lower part of the plantation, a large one occurred near the upper line which soon attained a width of 400 feet, with an average depth of nine feet. After two attempts to close it, it was finally narrowed to within 30 feet; the work was suspended as usual for the night; the next morning it was found that some 50 feet of the piles, which had been driven, had been washed away and the channel was found to be twenty-five feet deep. The funds subscribed, having been exhausted, and no more being available, the break was abandoned. At the present time, it has a width of 200 feet, with an average depth of 15 feet. The area, inundated is about 100 square miles: the greater portion is swamp land. From present indications, *severe grades of fever and malarial dysentery may prevail later;* I have already met with several cases of both, which were unusually severe for so early in the season.

As to the deposits from these overflows, I have made no accurate observations, nor can I procure any very reliable information. They are generally confined to those plantations upon which the crevasses occur, and are deeper about 15 or 20 acres from the river, where the water meets with the resistance of the forest growth and with other obstructions."

April 15th, 1883, Dr. Fox further reported as follows: "contrary to my expectation, no unusual sickness occured after the overflow of 1882. A number of cases of malarial intermittents have occurred during the past few months, but not more than in ordinary years."

Dr. J. B. Wilkinson, reported, April 29th, 1882, as follows:

"Fortunately for us, the overflow this season in this parish has been very limited to this date and we hope may not extend. During or subsequent to an overflow in 1847, a malignant dysentery prevailed in the portions of this parish inundated.

It did not show itself until late in the fall and it continued during the winter.

The greatest overflow that we ever experienced here, was from the Bell Crevasse of 1858. It was confined to the right bank. The river kept up until late in August; the total number of days of high water here were 119. Following this overflow, a great deal of pneumonia occurred during the *late fall* and winter. On one plantation it was so serious, that work was much impeded by the large number of negroes confined to the hospital at one time. Although cases of pneumonia are found here every year, I never witnessed this disease as an epidemic in this parish, except following the overflow of 1858.

From my observation of the locality or localities of sickness succeeding overflows, there is no tendency to greater suffering where the river deposit mainly takes place, than in localities overflowed, but more remote from this point. On the contrary, the instances observed by me, where sickness prevailed to the greatest extent, were remote from the levee-breaks, around which the greatest deposit always takes place.

The large amount of stagnant water which will be sure to remain in the swamps this year, warrants the belief that the overflowed districts will suffer to a greater extent than usual from sickness. We may look for fevers in August, September and October, and dysentery and pneumonia afterwards. I hope this anticipation may not be verified. Should any phenomena present themselves to my observation, regarding health connected with the present overflow, it will give me pleasure to relate them to you."

April 15th, 1883. Dr. Wilkinson farther reported as follows: "I left Louisiana in July last, and did not return until autumn, so that I had no opportunity for personal observation during that period. However, semi-weekly letters informed me that our district was unusually healthy, and, on my return, my confrères corroborated the information sent me. There was no unusual prevalence of dysentery or pneumonia during the autumn and winter. In July and August, there was an unusual rainfall, which kept the ground saturated after the flood receded and maintained an unusually low mean tempe-

rature. To this large rainfall, associated with depressed temperature, I attributed the good health of this Parish during the summer of 1882."

West Baton Rouge Parish.

Dr. Richard H. Day, one of the oldest and most reputable physicians of Louisiana, long resident in the city of Baton Rouge, reported April 30, 1882, as follows:

"General experience and close observation justify me in saying most positively that *an increase of sickness is invariably the result of overflows,* both in the districts inundated and in their adjacent neighborhoods. This result may be greatly modified by the falling of heavy rains during the subsidence of the flood—that is, if frequent and heavy showers of rain occur during such time, the deposits are washed off the lands into the streams and less sickness is the result. If, on the contrary, but little or no rain falls, the accumulated deposits remain to undergo decomposition, and much and graver sickness ensues, if not as a result, as an accompaniment. The character of this sickness, succeeding overflows, is clearly what we designate as of malarious origin—malignant intermittents, and remittents, dysenteric and haematurial diseases being dominant and asthenic in type.

This was observed on several occasions, while I was residing in the Attakapas* country, a large portion of which, indeed, all on the east side of Bayou Têche and of the Atchafalaya River, consists of low lands subject to frequent overflows.

Since I have been living in Baton Rouge, the same has been observed in reference to the low lands of West Baton Rouge and of the Grosse Tête country. So, though I cannot be precise as to dates, I can be in reference to the general results of overflows upon the health of the inhabitants."

Point Coupee Parish.

Dr. Peter Randolph, my relative and a resident on False River for nearly thirty years, reported May 24th, 1882, as follows:

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* The section of country formerly designated as the Attakapas, included the whole or parts of the present parishes of Vermillion, Lafayette, St. Tamary, St. Martin, St. Mary, Iberia and St. Landry.

"During all of the sixteen years from 1866 to 1881, excepting the five years 1870-1-2-3-9, this section of my parish has been partially inundated, that is, a large portion of the fields have been flooded from the rear, but the dwellings, fronting on the higher bank of False River (in truth a lake), have not been invaded. These repeated floods have been due to the inability or negligence of the State to close the Grand Levee near Morganza, which is about fifteen miles distant from my neighborhood.

Since the water has a long course, through forests and brush-wood, before it reaches us, the floods leave here no deposits. These are always near the breaks in the levees.

In 1866 the flood came in May and left in July. In 1867 the flood came in March and did not leave the fields until August 11th. With this flood there came some choleraic influence, and in the fall a very fatal fever broke out which was here considered yellow fever, but at other places it was reported by some to be hæmaturic fever.* I do not think the flood had anything to do directly with either of these outbreaks. Exposure, fatigue, poverty, insufficient and improper food did no doubt exercise unfavorable influence. With these exceptions, the eleven floods referred to do not seem to have been attended by any disturbance of the public health.

I attribute the failure of our floods to influence health unfavorably to the two following facts: When the water has begun to recede rapidly we have invariably had copious showers of rain, and, even when there has been a most disagreeable stench, the air has become perfectly sweet a few hours after a rain. After an overflow, the growth of vegetation on our alluvial lands is almost magical, so rapid that the ground becomes covered in a few days after it becomes dry. Thus, much is absorbed from the atmosphere that would be poisonous to man."

April 9th, 1883, Dr. Randolph farther reported as follows:

"In my immediate neighborhood it was as healthy, after the overflow of 1882, as usual; but, in every other part of the

*In 1867 New Orleans and many adjacent places suffered from a very severe epidemic of yellow fever.

parish, more sickness was reported than I ever heard of before, after a residence here of twenty-seven years. I attribute this difference between my neighborhood and elsewhere in the parish to the fact that the people just around here did not receive the great brunt of the water, they were also in better condition to protect themselves than in other localities and were probably better fed."

In addition, Dr. Randolph gathered information from five other physicians in his parish, viz. Drs. Carruth, Ginn, Ladmirault, McCaleb and Smith. All testified that there was an unusual amount of sickness in 1882, chiefly malarial, and that the fevers were more obstinate than usual. Four testified that haemorrhagic malarial fevers were unusually frequent, from which the oldest and most experienced, Dr. Ladmirault, dissented. Four testified that whites and blacks suffered equally. All testified that the sickness increased *after* the water receded. Drs. Carruth and McCaleb attributed the unusual sickness to the overflow; Dr. Smith attributed it primarily to the overflow, but immediately to the decomposition of vegetable and animal matter, which the overflow increased. Dr. Ladmirault confessed that he did not know whether the overflow caused it or not; and Dr. Ginn declared that in his opinion the overflow was not the cause of the unusual sickness.

Concordia Parish.

July 10th, 1882, the New Orleans *Picayune* quoted from the Concordia *Eagle*, as follows: "So far, the health of our parish is good and bids fair to be as healthy as any preceding year. We are fully satisfied that an overflow, though detrimental to the planter's interest, is yet the harbinger of health. In the midst of all our troubles we are blessed with good health which is the greatest blessing man can enjoy."

Tensas Parish.

June 13th, 1882, the New Orleans *Times-Democrat* quoted from the North Louisiana *Journal*, of St. Joseph, Tensas Parish, as follows: "We have heard the assertion often made

that, after an overflow, a healthy summer would ensue, yet quite the contrary has proved to be the case so far this season, for there has been, ever since the subsidence of the water, and still is considerable sickness in town and in the country surrounding."

EAST CARROLL PARISH.

Dr. F. R. Bernard, a highly esteemed graduate of 1876, since when he has practiced at Lake Providence, reported December 5th, 1882, respecting this extreme northern parish as follows:

"A portion of this section of country, lying south, perhaps fifteen miles from here, and comprising at least twenty miles square, was almost entirely submerged by the recent flood of 1882. It was inhabited by about 3000 persons, chiefly negroes. Among these could be found all varieties of disease whose paternity is referable to paludal and miasmatic agencies: intermittent, remittent, and continued fevers—the latter possessing the concomitant symptoms of typhoid—were the unwelcome visitants to every hut and mansion of these distressed tillers of the soil. Diarrhœa, dysentery and bowel derangements were prevalent and might be catalogued with the fevers already mentioned. But to say what additional amount of disease was invoked by the waters, is quite beyond my power. Physicians living in the locality in question are entirely too lethargic to take the trouble to furnish me with the facts, and I don't live near enough for personal observation.

Intelligent and responsible citizens, however, whose homes are in the overflowed portions of the parish, assevarate that there was an increase of disease not less than 25 per cent. in excess over any previous year in their remembrance. Many have told me this but it is really incredible. The sickness, I believe, appeared principally when the water had receded. In many instances, it was of a fatal type, and generally difficult to control. Sandy concrete deposits averaging a depth of two feet, exhibited themselves on the departure of the water."

The evidence thus far presented has referred to parishes bordering on the Mississippi river, from its mouth to the Northern Arkansas line. Other evidence will now be presented

concerning the Northern Red River country and the Southern Atchafalaya or Attakapas country.

Natchitoches Parish (Red River).

Dr. S. O. Scruggs, a well known and experienced physician of Cloutierville, kindly furnished, May 9th, 1882, the following information :

" My observations in regard to overflows and their influence over the sanitary condition of this section of Red River and Cane River, extends largely over a third of a century, and I must say that *I have never known an overflow followed by any notable augumentation of the diseases incident to this locality.* The greatest overflow, ever known on Red River, was that of 1849, which occurred in August and, though the water receded early in September leaving thousands upon thousands of acres of land exposed to the burning heat of that hot and unhealty month, *yet there was no visible increase of summer and autumnal fevers.*

Again in 1851, the whole country was overflowed, yet the summer and autumn of that year *were the healthiest I ever experienced here*, save in 1855.

Again in 1866, the entire country was under water, and yet the summer and fall following were *extremely free from disease.* This is somewhat opposed to the theory that overflows produce disease and death. They may do so in other regions, but they *certainly have not done so during my long residence in the bottom lands* of Red River. *On the contrary* they have oftener been followed by extremely healthy seasons. The receding water being followed by showers of rain accounts no doubt, in some degree, for the healthiness of the country after some overflows. The great flood of 1849, was more disastrous to the planters of Red River, than the flood of 1882 has been to the planters of the Mississippi, for, the Red River commenced rising in June and only ceased to rise on the 21st of August, having been for over a month from eight to twelve miles wide. When the waters receded, leaving this large amount of land exposed to the scorching rays of a September sun, *no rain followed,* nor was there any augmentation of disease ; on the con-

trary, it was *unusually healthy.* Nearly every planter lost his entire crop, and the exposed fields, which had been recently covered by from three to four feet of water, were a source of alarm, save among the creoles who often said to me "*c'est rien nous n'avons pas peur.*" This was evidence to my mind, that while the creoles had long been accustomed to the ravages of overflows, they did not fear the sequelæ, so far as their sanitary condition was concerned."

ST. MARY'S PARISH (ATCHAFALAYA RIVER).

Reports were received from four contributors living in different parts of this parish. Dr. S. M. Abbay, of Centreville, a village between Pattersonville, to the east, and Franklin, to the west, wrote, May 2d, 1882, to the following effect: Dr. Abbay had never witnessed an overflow until April, 1882, when a portion of Centreville was inundated. The public health had not been apparently impaired to May 2d. "Dr. C. E. Allen, of Centreville, has stated that the summer following the overflow of 1874 was healthy. In the Mississippi valley the old planters say that a healthy summer always follows high water."

Dr. C. M. Smith of Franklin, President of the local Board of Health, and an ex-President of the Louisiana State Medical Society, reported, July 21st, 1882, as follows:

"Since the subsidence of the flood, an unusual amount of sickness has prevailed throughout the parish of St. Mary, and especially has this been the case along the Bayou Têche, both in this village and on every plantation. While there has been *less than usual of malarial fever*, dysentery and diarrhœa prevail everywhere in an epidemic form and, in some localities, a few cases of typhoid fever have occurred. It is a noticeable fact that the most malignant forms of disease have been observed in the lower portion of the parish where the lands were submerged on both sides of the river and where no preventive measures were adopted. Seasons of overflow, according to my observations, have heretofore been *invariably followed by healthy summers*, and this accords with the experience of every physician with whom I have conversed. It is evi-

dent to me, that the widespread prevalence of the diseases named, in a region of country usually healthy, is due to the deposit left by the recent remarkable flood, which, for the first time since 1828, invaded almost every dwelling and left under many houses stagnant pools containing all the elements of disease. If the people could have been persuaded in time to adopt a proper system of drainage and disinfection, much of the evil that has resulted would have been avoided. The large mortality during the present summer, from diseases which are known to be preventable, will serve as a warning to only the intelligent few, while the ignorant multitude will continue their opposition to all hygienic measures and recommendations adopted by the Board of Health for the public good. Until a well-regulated system of sanitary laws is adopted by the legislature and strictly enforced, our people will continue to suffer and die from causes that can and should be removed."

April 19th, 1883,—Dr. Smith farther reported as follows:

"In my opinion, the increase in local disorders was due to the overflow, and not to bad diet. There was the usual abundance of good, wholesome food everywhere except for a short period in the lower portion of the parish where the overflow was general and the land entirely submerged. In this section, there was a scarcity of food for a few days, but during the most of the period of high water, the laborers were supplied with provisions both by the planters and by means of rations issued by the U. S. Government. Many buildings were swept away by the flood, and the negroes on each plantation were compelled to find shelter in the few cabins that remained or in the sugar houses. Impure air and accumulations of filth, resulting from over-crowding and the enforced confinement of large numbers of negroes in small apartments, must have been important factors in producing such diseases as dysentery, diarrhœa, typhoid fever, etc. These diseases, however, prevailed in all portions of the parish and only became general after the water had subsided. From the village of Centreville to the extreme upper line of the parish (at Jeanerette), there was no general overflow on the west side of the bayou Têche, but the water reached the plan-

tation quarters everywhere and was under almost every dwelling on the banks of the Têche.

Malarial fevers prevailed to a very remarkable extent throughout the parish of St. Mary during the months of August, September and October, continuing with unusual severity until the middle of November, from which period they abated. In many cases of fever, both of the intermittent and remittent type, the thermometer indicated a temperature of 106°. This unusual prevalence of malaria, during the summer and autumn of 1882, was not confined to any section or neighborhood, but was general throughout the parish, as I have ascertained both from personal observation and from conversations with physicians.

The deposits upon the land and under dwellings of decomposing vegetable matter, and accumulations of filth (both vegetable and animal) around dwellings and especially in the negro quarters; pools of stagnant water left by the flood and the entire neglect of drainage after the water had subsided; miasmatic effluvia, from the recently overflowed swamps in the rear of plantations and bordering on Grand Lake, were undoubtedly the principal causes of disease. The amount of rainfall was much less than usual and Northerly winds prevailed throughout the summer and fall months. Thus, contrary to all former experience, the deposit remained on the soil exposed to the action of sun and air, and malarial disease, in its various forms, became more widespread than during any previous year. It is a fact worthy of notice that more cases of fever, and of a worse type, occurred among the negro women and children remaining in their cabins and about the quarters, than among the men at work in the fields or cutting wood in the swamps. May not this be due to some poisonous principle, engendered by a mixture of such decomposing animal and vegetable substances as are always accumulating about the houses of plantation laborers?"

Dr. L. W. Tarleton, of Pattersonville, reported June 21st, 1882, as follows: "The water flooded this part of the parish April 2d, and remained nearly four weeks. I have not noticed any bad effects, as far as concerns health, except in one par-

ticular. We have had an epidemic of acute dysentery with other bowel troubles; the mortality has however been very small, not five per cent. Otherwise, this section is exceptionally healthy; it has been *entirely exempt from any of the fevers so common in this climate at this season.*"

Dr. L. A. Burgess, then at Bartel's Postoffice, near Pattersonville, but now at New Iberia (Iberia Parish), contributed the four following interesting and valuable communications on May 11th, July 6th and 14th, 1882, and April 17th, 1883:

May 11th, 1882. "I write to acknowledge receipt of your circular letter, dated 26th April, asking information relative to influence of overflows on health. In reply I answer that I have had no experience with overflows prior to 1882, having always lived in sections of country high above floods. My experience, however, with the present one is ample, but it is too early to make report on its influences on health as it has only partially subsided. The swamps are still under water from three to fifteen feet deep, and fully one-half of the cultivated land on the east bank of the Têche is still submerged. When the water entirely subsides, and we have the semi-tropical heat of summer, then I will give you such facts as I have observed or as may be of sufficient value to report. Up to this date, the public health, within the circle of my own immediate observation, is as good as usual at this season, and, as far as malarial fever is concerned, better than last year."

July 6th, 1882. "Up to this date (July 6th), evidence is wanting to show that the overflow in this section has *directly* exerted any deleterious influence on public health. On the contrary, it is reasonable to believe that it has proved a very salutary measure in a sanitary point of view, for the reason that, owing to the rapidity of the current, every particle of filth was scoured out and washed away into the swamps. No sanitary commission, clothed with the most despotic power, could more effectually cleanse a town or city, than did the overflow scour out and wash away all filth accumulations on the Têche. In other districts where there were no strong currents but eddies and dead or still water, it is likely that unhealthy conditions have been directly developed by the flood.

Indirectly, the overflow here has perhaps caused a greater prevalence of diseases of the digestive organs than would have otherwise obtained, but even of this positive proof is wanting, for, these diseases often prevail when there has been no overflow. Be that however as it may, diarrhœa and dysentery have been unusually prevalent since the water subsided, and I suppose we must attribute this to an unwholsome diet, and to privation, exposure and destitution in various forms, all the certain accompaniments of great catastrophes, no matter how induced.

Malarial fevers are less prevalent by one-half than last year at this date; but whether this exception is due to to the washing away of all surface filth or not I do not know; but I do know that some years without an overflow, the country is singularly exempt from malarial fever.

I fail to note any dead animals or accumulations of dead fish, though looked for; and so often alluded to as important factors in poisoning the air of overflowed regions, I saw none of either kind, and believe they oftener exist in imagination, than in reality. Owing to the rapid current, the amount of deposit was trifling; had it been greater I do not think it would have been productive of unhealthiness; for, as soon as the water subsided, it would have been covered by a dense growth of weeds and grass which would have effectually protected it from the action of solar heat, and it is through this agent that terrestial poisons are set free.

The deprivation of all fresh vegetables, the extreme scarcity of fresh meat, and the almost universal use of salt pork, together with the almost unlimited use of catfish and crawfish, as articles of diet, have had more to do in producing sickness, and in modyfying disease than all other causes combined."

July 14th, 1882, "Yours of the 8th inst. to hand, and, in compliance with suggestions therein contained, I submit the following information additional to my former letters relative to the influence of overflows on health.

The area of country to which my observations apply, comprises all that portion of the bayou Têche, extending from the lower line of Fairfax plantation, this having been the upper

limit of the overflow on the west side, to Glenwild plantation, on the Atchafalaya River, and, when measured by the sinuosities of these two streams, would equal fifteen miles. A few words on the topography of the overflowed district may, I think, materially aid one, not acquainted with the country, in more fully appreciating the character of the overflow, the cause of the strong current, its force and its beneficial influence in a sanitary point of view.

The surface of the country is flat, of alluvial formation and raised not over ten feet above sea level. The Têche, a very sluggish tide water stream, and navigable for large steamboats, empties into the Atchafalaya, one and half mile above Patersonville. The arable land comprises a narrow strip on each side of the bayou Têche, varying in width from a half mile to one and a half miles and, where this arable land ends, a cypress swamp commences, which, on the east or north bank, intervenes between the plantations and Grand Lake, and on the west and south side, the swamp lies between the plantations and the sea marsh. These swamps are from a half mile to a mile or more wide, and are usually covered with water a few inches deep, except in periods of long drought. Grand Lake commences three miles above Morgan City, and runs parallel with and distant from the Têche from one to four miles or more. It extends beyond the limits of the parish, and reaches nearly or quite opposite to St. Martinsville, in St. Martin parish. It is a broad, shallow lake, or more properly, the deepest part of a large basin lying between the Mississippi and the Têche, and through which the Atchafalaya River flows in its course to the gulf.

The Têche, like all other streams running through alluvial lands and subject to overflow, has the highest land immediately on its banks, and this higher land slopes gradually towards the swamps on each side of the stream, thus forming two inclined planes. The flood water, which devastates this section, comes down the Atchafalaya River and also from breaks in the Mississippi River levees, both above the northern extremity of the Atchafalaya and also below it, as low down as West Baton Rouge parish. As both banks of the

Têche are on a level or of the same heighth, it follows that, as long as the crest of the east and north bank is above water, this crest acts as a protection levee to the whole west and south side. Therefore, the latter remains perfectly dry while the east and north side is being gradually inundated, but as soon as the water gains the crest of the bank, it pours over and rushes down the western incline plane to the swamp and through it to the sea marsh. This rush of water across the west side of the Têche was unbroken from Fairfax to Glenwild plantations. I do not know the velocity of this current. It was strong enough to wash down negro cabins and other light buildings, to wash down fences firmly posted in the ground, to remove coal piles and scatter the coals across the plantations and to wash away the front land as deeply as it had been broken by the plow—say five inches.

On the east side there was no current until the water ran over the top of the bank. The flood water poured down the Atchafalaya, filling the basin of which Grand Lake forms the lowest part and, continuing to rise, flooded the cypress swamp between the lake and the plantations, and made its appearance in the plantations next to the swamp about the 15th March. This swamp is an almost impenetrable jungle, formed of trees, underbrush, vines, briars, etc., and these evidently acted as *filters* in relieving the turbid flood water of the greater portion of its sediment before reaching the open fields, where only the lighter and finer silt was deposited.

From notes made as each following event occurred, I find that the overflow was general on Tuesday, April 4th. On Sunday night, April 9th, the water ceased to rise and came to a stand and remained so until Thursday, April 13th, when it commenced falling and continued to do so gradually until April 25th, when the left bank of the Têche emerged above water. By the 15th May nearly all the land on that side was clear of water. On the east side the fields were not entirely freed from water before the 25th of June, as its fall there was governed entirely by the fall of the water in the Atchafalaya River.

The crest of the great overflow wave, coming down on the Têche district, reached it March 31st, when in 24 hours the water rose 11 inches, and continued to rise at this rate for nearly 48 hours, after which it gradually diminished until brought to a stand, on the 9th of April. On Tuesday night, April 12th, a heavy storm occurred which did much damage to buildings and, blowing against the current, raised the water six inches, which, however, rapidly subsided to its former level soon after the gale ceased.

As for the population, white and colored, remaining in the overflowed district, it is mere guess work to make even an approximate estimate of the number, for the reason that, during the overflow, and after its subsidence, a great many people, white and black, left for higher and more favored lands and the exodus still continues. However, I will attempt this, and think the better plan to get as near the truth as possible will be to give a list of all plantations and average the population of those I do not practice on by those I do:

Name of Plantations.	No. Whites.	No. Negroes.	Name of Plantations.	No. Whites.	No. Negroes
Fairfax	6	40	Victoria	1	40
Ricohoc	3	30	Waveland	3	50
Mound	4	25	Williams	3	30
Grand Woods	14	50	Como	2	25
Pecan Grove	17	50	Evangeline	10	10
Calumet	15	70	Lagonda	15	50
Avalon	4	40	Pine Grove	5	40
Wendel	6	15	Glenwild	5	60
Luckland	20	50	Pattersonville Village	200	200
Moro	7	40			
Lynch & Cropper	10	50			
Totals				350	965

The above figures give a total population on the west side of the Têche and Atchafalaya, from Fairfax to Glenwild plantation, 350 whites and 965 negroes or a total of 1314. Now, on the east side of the Atchafalaya, commencing opposite Pattersonville and extending two miles below Glenwild, there are several large plantations and a number of smaller ones; but,

I know very little about this section, and think a statement giving as its population 100 whites and 400 or 500 negroes, a very liberal estimate. We will put it at that, which added to the numbers on the west side, gives a total population of 450 whites and 1365 negroes, or a grand total of 1815. This, I am satisfied, is somewhere in the neighborhood of the truth; nothing short of an actual census can give correct numbers.

Those, who interested themselves in procuring government rations during the overflow, enormously overestimated the population; telegrams went abroad that 4500 persons, from Fairfax to Pattersonville, were destitute and starving, which was a frightful exaggeration of the entire number of people within these limits. As to starvation or destitution at that time, there was no evidence that either existed. I saw none during the overflow, which came suddenly and unexpectedly, and plantation work on the west side was continued until the day before the water broke across. There was plenty of work to do at fair wages and all, except a few profligate drunken negro tramps and bummers whose loss by the flood would have been a good riddance of bad rubbish, had money and provisions on hand, amply sufficient to carry them through the watery siege to which they were to be subjected. Such at least was the case here, and the novelty and excitement, attending the overflow, and its continuance no doubt contributed to preserve health, as the amount of sickness was trifling during its continuance, *except* among *children under five years* of age, and here it was the diet and not the overflow that caused it,

Whenever infants are placed on a diet of solid food, such as salt pork, fat meat, crawfish, heavy indigestible bread, etc., and diarrhœa and dysentery assail them, it does not require much trouble to find the cause of it. But then it is handy and easy to charge it to an overflow as this saves time in investigating the causes of disease.

The only sickness, prevailing at this date, still continues to be diseases of the digestive organs, chief among which are diarrhœa and dysentery. The different forms of malarial fever

have not increased, there are but few uncomplicated cases of it, and, although not much given to predictions, still I will venture the prediction that, so far as malarial diseases are concerned, it will be a healthy year. I think I have good reasons for this belief but want of space forbids my stating them here. There it nothing peculiar or specific that I can discover about the diarrhœa and dysentery, now prevailing. There is a good deal of entero-colitis among young children and it often proves fatal among negro children; but, when the profligacy and utter worthlessness of the negro women is honestly estimated, it is not surprising that many negro children die who might, under more favorable surroundings, be saved."

April 17th, 1883, Dr. Burgess farther reported as follows:

"I moved from St. Mary's parish to New Iberia, my present abode, on the 25th of July, 1882, and cannot, therefore, give any information based upon personal observations, as to the health in that section after the above date.

Malarial fevers were quite prevalent in the country roundabout New Iberia, last August, September and October, where no overflow has ever occurred or will ever occur, and this section was distant from the nearest overflowed country about four miles.

It was the prairie country on the west bank of the Têche, along Spanish Lake, and out towards Avery's Island and Abbeville, where intermittents and remittents were so prevalent. In the town of New Iberia, the fevers were not so numerous, although there is nothing about it, in a sanitary point of view, that is commendable.

To conclude, it is my observation that, in the swampy regions of Louisiana, it is unnecessary to have overflows to produce malarial fevers and bowel diseases, notably dysentery, as these are all quite frequent every summer and fall whether there is an overflow or not."

General Evidence on the Influence of the Overflow of 1882.

In March, 1883, a sanitary authority stated that, "last summer it was expected that terrible epidemics would follow

the Mississippi overflows, but these expectations were not realized." In the Annual Report of the New Orleans Charity Hospital, for 1882, published in 1883, the house-surgeon, Dr. Miles, alludes "to the unusually wide prevalence of malarial fevers in the inundated districts of the State." Prof. S. M. Bemiss, my colleague, reported in the Philadelphia *Medical News*, December 2d, 1882, as follows, in reference to the "Health of New Orleans," and the sanitary results of overflows:

"This city has enjoyed a rather remarkable exemption from sickness during the past season. The overflow of the Mississippi in the spring has been followed by intensified malarial diseases in many parts of the valley, and by dysentery in some parts of the overflowed districts. It is true, however, that some portions of the inundated regions have been exempt from all forms of disease not usual to them. The proper explanation of this apparent difference in effect is due to the accidental circumstances affecting the various localities. First, wherever the currents produced by the escaping waters swept the surface, no sickness was likely to ensue. Second, wherever very deep deposits were formed, the circumstances were not favorable to the evolution of malaria. But, third, wherever slight deposits occurred from the *stagnant* water, violent malarial diseases have prevailed."

FOREIGN EVIDENCE.

Colin, page 594, of his Maladies Epidemiques (1879), states, that malarial epidemics *sometimes* result from inundations and quotes from Foissac, as follows: "Thion de la Chaume reports that the Arabs wishing to avenge an insult inflicted by the inhabitants of Bassora, caused the river which surrounds it to overflow; and the result was that, when the water receded, an epidemic victimized 12,000 or 14,000 persons. Analagous examples are recorded in the wars of our own country. In 1748, during the war of the Austrian succession, the Dutch inundated their kingdom to defend themselves; when this occurred the summer was burning hot, the preliminaries of peace were then signed and the flood was made to

recede; thereupon a grave epidemic developed and the government ordered a renewal of the inundation until winter should appear."

Boudin, page 520, Vol. II, of his Géographic et Statistique Medicales (1857), states that inundations of the Rhine repeatedly caused at Strasbourg a great increase of malarial fever. The great inundation of 1824 was followed, during the four succeeding years, by a very great increase of intermittent fevers with a corresponding decrease in continued fevers.

Dr. Macgowan, unknown to me, recently forwarded a published article from Hankow, China. In this, he treats of the "so-called unprecedented flood," in July and August, 1882, of the Yangtsze river, which traverses the centre of China and empties into the sea at Shanghai.

This interesting article closes as follows:

"Fluviatile inundations are followed in many parts of the world by outbreaks of intermittent fever and various maladies, while others, as those of the Mississippi, are not inimical to public health, as has been shown by New Orleans statistics published by Dr. Chaillé. On inquiry, I find that the Yangtsze floods do not give rise to zymotic diseases. I have examined the register of the Mission Hospital under charge of Dr. Mawbey, Hankow, and can discover no evidence of disease being unusually rife after the periodical floods subside; and foreign residents concur in affirming that floods have never proved sources of ill health. On the contrary, it is believed that the surplus waters cover and destroy malarial germs, which is supposed to be the case at New Orleans. Still, I find that although the Yangtsze does not deposit organisms which become zymotic germs, some natives believe that ague is rather more common when the waters retire than before. In one respect the floods certainly prove hurtful; field laborers, by constant wading, suffer very extensively from ulcerated legs. In deploring the consequences of deforestisation, I omitted to state that forest thinning has had a counterbalancing effect in the south of China, reducing the ravages of jungle malaria, which recedes with the advance of agriculture."

It may be well to add that, while deforestisation diminishes the quantity of rain and of soil moisture, thereby injuring agriculture, it greatly favors the rapid flow of water, when rains do occur, into adjacent streams and thereby causes freshets and floods. To prevent these evils, Dr. Macgowan thinks that the Chinese Government will be forced to interfere. Spain and other countries have been compelled to plant trees to protect their improvidently denuded lands from alternate drouths and floods.

In concluding this foreign evidence on the sanitary influence of floods, the probability is worth noting, that if floods habitually caused epidemics or disease, the records of medicine would cite many more instances thereof than I have been able to find; for, partial inundations have always been and continue to be very frequent in every part of the world.

SUMMARY AND GENERAL CONCLUSIONS.

All of the evidence I have been enabled to collect has now been presented. The evidence of my ten correspondents varies from that of Dr. Day, who testifies that "an increase of sickness is invariably the result of overflows," to that of Dr. Scruggs, who testifies that he has "never known an overflow followed by any notable augmentation of the diseases incident to this locality." However, it is noteworthy that those, who testify to evil results, fail to discuss and thereon to decide whether these results were not coincidences rather than consequences, or whether the floods did not cause the insanitary evils, indirectly rather than directly. On the whole, the weight of all the evidence preponderates in favor of the view that floods do not generally cause disease directly. No evidence is required to prove that floods may impair health indirectly or secondarily; that is, to the variable extent that they may cause, as they frequently do, such insanitary conditions as anxiety of mind, exposure to the weather, wet and scanty clothing, insufficient and improper food, overcrowding in places of refuge, befouling the drinking water of wells and springs with such disease-poisons as those of typhoid fever, cholera, malaria, etc.

But, the questions of chief consequence are, what insanitary conditions result *directly* from floods and what are the diseases caused thereby? The changed conditions, which immediately result, are only two, viz: increased humidity of the air and submersion of the water-logged soil. Aerial humidity is not in itself injurious as is proved by the healthiness of those who live on the water, whether salt or fresh; and, experience has amply proved that health is protected by covering a malarial soil with water. Now, throughout all the country subject to overflow by the Mississippi river, the malarial poison is not only the chief disease-poison, but it is also the sole poison which specially characterizes and ravages this section. Hence, if the floods of our river cause disease, other than is caused by the floods of rivers in non-malarial countries, such evil influence should be observable specially in respect to the malarial poison. In truth, the influence is beneficial as long as the malarial soil continues to be well covered with water. However, when the flood subsides one new condition is always and two other new conditions may be developed. The water-logged malarial soil is always exposed to sun and air; in addition, the receding water may leave behind it both stagnant pools and accumulations of decomposing filth. Such soil, pools and filth are detrimental to health and often exercise an unfavorable influence, specially on malaria. But, these three evils vary greatly in amount; varying with the weather, with the irregularity and other peculiarities of the soil, with the force and velocity of the receding current, etc. Thus, in one locality the earth may be promptly relieved of its extra subsoil water, there may be no stagnant pools, and a strong current may effectually cleanse away the filth; while, in another locality these three conditions may be very noxiously reversed.* Farther, it is taught, that moist alluvial malarial soils and stagnant ponds require a hot, "drying up" season to intensify their malaria; and that, while heavy rains often seem to be necessary to develop the malaria in soils usually dry, yet freedom from rains and drying up of the earth are required to increase the malaria of wet soils and marshes.

*In this section of country, sub-soil water and aerial humidity are excessive, independent of overflows.

Inasmuch as overflows are associated with such varying conditions as have been suggested, it is manifest that the sanitary results may vary not only at different places and seasons, but also even at the same place and season from one flood to another. These varying conditions require more careful study and record, and it is hoped that this article may stimulate physcians, in localities subject to overflow, to more thorough and accurate observation.

In the meantime, it is satisfactory to find that the evidence thus far collected indicates that overflows do not cause inevitably or generally any notable increase of malaria or of other disease, and that they certainly do not usually either cause or promote epidemics. Therefore, the direct influence of overflows on health is not usually to be dreaded.

Surgical Treatment of Wounds.

By R. H. DAY, M. D., of Baton Rouge.

Read before the Louisiana State Medical Society at its meeting, held in Shreveport, April 4-5-6, 1883.

To be useful should be the grand moving inspiration of all human effort, especially in our noble science. We should never lose sight of its high mission—to alleviate the pains and heal the accidents and diseases of suffering humanity. Hence the organization of medical societies becomes a duty for the interchange of thought, reading of essays, discussion of medical subjects, etc., the logical and rational means for diffusing useful knowledge, correcting errors and bringing about a right understanding of the fundamental principles and truths of medical science and practice, as well as to establish a genuine brotherhood among the members of the medical profession.

That medicine is a *science* I do not hesitate to assert. I am aware that it has been charged by some, who assume to be learned and scientific, that medicine is not a *science;* but a mere system of uncertain and ever-changing theories, based

upon a series of blind experiments and observations. However much the ignorance and the charlatanism, within the pale of the medical profession, have helped to originate and perpetuate this erroneous idea, it is true, nevertheless, that medicine is a science; yea, a *profound* and *useful science*, founded in the very nature of man's being and organization; and the mechanical, chemical and bio-dynamic laws or principles governing his nature, in the various processes of circulation, digestion, assimilation, nutrition, accretion, secretion, exertion, disintegration and death, are as real, cognizable and immutable, as are the laws of natural philosophy or physical science.

It is true, the *essential* nature or *essence* of these laws or principles of vital organized bodies, we may not comprehend fully; but the same is equally true of all the physical laws of universal matter. Who among the devotees of science has ever demonstrated or comprehended the *essential essence* of the laws of attraction and repulsion of matter; the laws of gravitation, chemical affinity, progression of light and sound, caloric, electricity, galvanism, etc.? These are simply the inherent *properties* or *forces* of matter, as the *physiological laws* are the *forces* of life, of whose *essential* nature, in either case, we absolutely know nothing. Whence derived, how originated or by whom imparted, is not now the question for discussion.

The foregoing remarks are simply intended to conduct you to a thoughtful consideration of what I shall say in regard to the "Surgical Treatment of Wounds," premising that my mind has been drawn to this subject by an address read before the Medical Society of London, last November, by Mr. Sampson Gamgee, F. R. S., on the "*Unity* of *Surgical Principle* in the Treatment of Wounds and Fractures," and published in the January number of the American edition of the *London Lancet*. This address has impressed me with great force, as embodying the true principles of practice in such cases, being based upon sound physiological principles and vital dynamics.

The "*unity* of *principle* in wound and fracture treatment," that is, oneness of principle, or one principle or law—the

property or *force* inherent in living matter of repairing damages in its tissues: here we are brought to recognize a general or universal *law* or *property* of all living bodies as real, as clearly defined and as constant as any law of the physical universe.

Nor is the recognition of this *vital principle* in the process of repair of wounds a thing of recent discovery, but it dates back to the early ages of medicine. Prof. Gross quotes Paracelcus as saying in his work on Surgery: "Warily must the surgeon take heed not to remove or interfere with *Nature's* Balsam, but protect and defend it in its workings and virtue. It is the *nature* of flesh to possess in itself an innate balsam, which healeth wounds. Every limb has its own healing in itself; *Nature* has her own doctor in every limb; wherefore every Chirurgeon should know that it is not he, but *nature* who heals." * * * "So the surgery of wounds is a mere defensive, to prevent *Nature* from suffering any accident from without, in order that she may proceed unchecked in her operations." Prof. Gross adds: "If these sentiments, uttered more than three centuries ago, could only be firmly impressed upon the mind of the modern Surgeon, there would be much less meddlesome practice of every kind than there now is, notwithstanding our boasted knowledge and our contempt for the Fathers of the profession."

Then, as physicians and surgeons, it is our imperative duty to study the activities of this *vital force, property or law* of living bodies, in all its various manifestations and workings; to observe what conditions, surroundings or agents, favor or disfavor, accelerate or retard, help or hinder, its physiological processes. It is this close analytical observation and research that makes the practical, scientific and skillful physician and surgeon; or its neglect, the unpractical and timid, or ignorant and presumptuous *counterfeit* in the profession of medicine.

Mr. Gamgee defines "Wounds and fractures to be, alike, interruptions of continuity, differing in the density of the tissue involved, and proportionately in the time required for re-union; but they are *essentially* similar in processes of repair and principle of treatment. * * In wounds and

fractures, division of tissue is the *essential fact*, which gives rise to a common chain of events—mobility, disordered innervation and effusion, which become causes of ulterior pathological results, if their development be not checked by proper treatment." This clear statement of Mr. Gamgee in regard to the nature of wounds and fractures, and their principle of treatment, distinguishes him as a master mind in the science of medicine, and eminently practical in the application of its principles of treatment.

We see, then, that wounds and fractures are interruptions of continuity—a breach in the living tissue, that alike acts as a common cause in producing pathological results, if not checked by proper and timely treatment. We further discover that the *physiological law* is the *normal* operation of this *vital force* in living bodies, to re-unite and repair the injured tissues. How best to aid the operation of this vital force or principle in repairing or healing wounds and fractures, in their various phases of extent and complications, is a question of the deepest interest and importance to every physician and surgeon, as well as to the universal family of man.

It is clear, that whatsoever tends to separate the divided tissues, whether it be the character of the wound itself, or the presence of extraneous matter, or retention of *débris*, necessarily opposes an obstacle to the vital process, and must be thoroughly removed, so as to offer no impediment to a perfect coaptation of the separated tissues. There must be accurate apposition of the divided surface, with firm elastic pressure, so applied as to keep them in close conjunction and immovable, supplemented by rest and infrequent dressing. These physiological principles in the treatment of wounds are so plain and common-sense, that they must commend themselves to the better judgment of every intelligent and clear-thinking physician; and, I will add, to execute them perfectly marks the pains-taking, skillful surgeon, while their non-observance or imperfect application must of necessity end in failure or tedious and marred recoveries.

I presume that, so far as these plain, fundamental indications of treatment are concerned, we shall be agreed; indeed, there

can be no disagreement in this regard among cultivated and intelligent practitioners of medicine. In the application of the means and agents to secure to the best advantage the fullest beneficial results, there is, however, some divergence of opinion and practice, even in regard to wounds in all respects similar in character and extent. This is manifestly not as it should be. The agreement should be as uniform in practice as it is in reference to the indications for treatment; for if there is a clear and accurate comprehension of the nature, extent and complications of wounds, and an intelligent perception of the physiological processes of cure, there should be a unanimity in the plans of treatment, and the tendency of modern investigation and practice is evidently drifting in that direction.

A few years since *Listerism*, in all its manifold and complicated details, was all the *rage* and *fashion* in surgical operations and treatments of serious wounds. Now, while no one would detract from the high reputation of its distinguished author, as a careful and skillful operator, it is demonstrated by the unrivaled successes of Mr. Keith and many others, both in Europe and this country, that *Listerism*, in its details, is redundant, inconvenient, expensive and unnecessary; and that equal, if not better success, is attained without than with it. Gradually one superfluity after the other has been dispensed with: First, the carbolic spray, then one super-imposed dressing after the other has been laid aside, until now it is absolutely manifest that *Listerism* is not the "Sine qua non" to success in the treatment of wounds, but *exact* and *accurate apposition* of the divided tissues, *immobility* of the parts and *rest*, and, as a necessary corrollary, infrequent dressings. The more perfectly these plain, fundamental principles are appreciated and applied in practice, the more rapid and satisfactory will be the results. Antiseptics are doubtless valuable accessories, but must be so applied as to act in harmony with the physiological laws of treatment, so ably enunciated by Mr. Gamgee.

It is important in surgery, as in general medicine, that medical men should always be careful and analytical observers, and

note with keen discrimination the *vital process* of *nature*, and the effect and action of every means and agent used to aid in curative process, as well as the conditions and surroundings affecting the results. By so doing, we shall most assuredly learn what is essential and what is non-essential in medical and surgical practice.

Mr. Gamgee correctly says: "Generalizations are proverbially difficult in a science and practice like that of surgery. However sound be their foundations—however close the reasonings by which they are arrived at, their success in particular cases depends on the judgment, skill and care with which they are applied. * * * But success demands attention to all of the *essentials* of the *physiological* treatment of surgical cases." Again, he adds: "These principles of treatment follow physiological lines. Injuries are serious in direct proportion as they interfere with the exercise of healthy living functions; to restore and preserve them must be the sugeon's great aim in treatment; and he will be successful in direct proportion as he imitates and assists the natural processes."

I have made these quotations from this learned author to sustain the view I have tried to advance, that the surgical treatment of wounds, aye, of diseases as well, is based, not upon blind empirical experiments, but upon sound *physiological principles*, in strict harmony with the *vital forces* or *laws* of living bodies. I can well recollect, in the early years of my professional life, how these sound physiological principles were ignored in the treatment of wounds; how incised wounds of any extent, and the flaps of amputated limbs were brought together at their edges by sutures, only to be cut out, or self-torn out in a few days, on account of the inflammation, swelling and distention, resulting from the imperfect coaptation of the parts; how cold-water applications, poultices, etc., were applied to subdue the inflammation set up; and the necessitated frequent ablutions and dressings resorted to, to induce repair of the wounds by granulation, which should have been treated by primary intention, without inflammation to any extent, and without suppuration.

Since many years past, I have abandoned this bungling and unscientific surgery. I use sutures only where they are absolutely required, relying upon *elastic compresses* and the *roller*, to hold the divided tissues together; and absorbent cotton saturated with some anodyne antiseptic over the wound, to absorb any drainage and to counteract sepsis; position to favor the escape of any oozing, and no re-dressing of the wound for eight or ten days, or even longer, unless some condition should arise to require it earlier. The leading idea with me is, to close the wound as quickly as possible, and, by regulated pressure, to hold the divided tissues firmly together, leaving no interspaces as receptacles for effusions; and by rest and infrequent dressing to give a fair chance for the normal physiological processes to effect the re-union. Where the wound is deep, by lateral compresses laid parallel with the wound, and the roller properly applied, the deep tissues can be as accurately and as closely brought together as can the superficial parts; and where the uniting bandage can be used, it will be found a most admirable contrivance for drawing the divided tissues together, and retaining them firmly and evenly in position.

In compound comminuted fractures, badly lacerated and contused wounds, with foreign substances interjected, as a matter of course this plan could not be strictly adhered to; but by removal of the foreign matter and spiculæ of bone, and other necessary expedients to place the wound in proper condition, it is perfectly wonderful, under this line of treatment, applied with accuracy and judgment, how quickly and perfectly nature repairs the most serious wounds.

As bearing fairly on this point, I may be permitted to mention some facts, related by Dr. H. J. Raymond, in the "*Medical News*," of December 20th, 1882, and re-published in the "*Medical and Surgical Reporter*," of January 27th, 1883. He says: "Of seven cases of *penetrating gun-shot wounds* of the chest, in Bellevue (Hospital), treated by antiseptic *occlusion*, but one case died, the others making perfect recoveries." He also denies what is generally accepted by the medical profession as an absolute truth, "that *penetrating gun-shot wounds*

of the joints are invariably attended with suppuration," and gives the experience of Karl Reyher to verify his position, "who," he says, "had under his care *twenty-seven penetrating* gun-shot wounds of the joints. Eighteen of these he treated by *primary antiseptic occlusion*, this is, by *hermetically* sealing the mouth of the wound by antiseptic covering, without having previously used *probe* or *finger* or *drainage* tube in it; of these eighteen, but one death occurred. The remaining nine cases were treated by *primary* antiseptic *drainage*, and of these two died." That is, of eighteen cases treated without *drainage*, and by *immediate* antiseptic *occlusion*, only one died; whereas, of nine cases treated by *primary* antiseptic *drainage*, two died." Besides these, he had six other cases of penetrating gun-shot wounds of the joints, in all of which there was lodgement of the projectile, which he treated by primary occlusion, without antiseptics, every one of which perfectly recovered without even anchylosis."

From an analysis of these cases, Dr. Raymond very naturally arrives at the following conclusions: "1st. That this method of treatment is applicable to a large percentage of wounds inflicted by a cartridge from a revolver, or cylindro-conoidal bullet from a modern rifle or carbine. 2nd. That in properly selected cases, wounds treated by this method do not suppurate, or secrete any septic fluid. 3d. On the contrary, this immediate antiseptic occlusion is intended to forestall suppuration, to prevent the accession of inflammation, and allow a reparative reaction and secretion to be set up; and 4th, that the simplicity of this method should recommend itself to the profession in the treatment of wounds to which it is applicable."

Still further, to sustain the soundness of the physiological principle of treating wounds, that of immediate closure, apposition, rest and infrequent dressings, I may add that, on the occasion of Mr. Gamgee's address, there were present some of the most distinguished surgeons in England, and among them Mr. Bryant (whose system of surgery is second to none), and they emphatically endorsed Mr. Gamgee's views and treatment.

Besides, I may further refer to the remarks of Mr. Berry,

surgeon to the "Royal Albert Edward Infirmary," published in "Braithwaite's Retrospect," for January, 1883. He says: "In treating operation wounds I have striven to observe the three cardinal points, namely, rest, drainage, pressure, based on physiological laws, and so much insisted on by Mr. Gamgee of Birmingham. * * * The convenience of this dressing can only be appreciated by the surgeon who constantly uses it. * * * In wound treatment we should particularly observe the three heads above mentioned, for by applying a dry absorbent material next to the wound, with firm and equal pressure and drainage, so as to allow the escape of all fluids from the wound, we render the necessity for dressing infrequent, and have everything favorable for healing."

I beg to state that, as far back as 1847, I have been treating wounds and amputations, where practicable, in conformity with this physiological principle, and with the most gratifying results. To illustrate, will report one case:

In the autumn of 1847 I was sent for in haste one night, to visit a negress belonging to Col. D. C. Sparks, of St. Mary's parish, who in leaving the cane field to return home mounted a cart that had been engaged in hauling drinking water to the laborers. The mule, taking fright, ran off, throwing the woman out, who in falling became fastened in some way to the cart, and was dragged a considerable distance over the cane ridges with their jagged stubs, from which the cane had been recently cut, receiving severe injuries. Upon reaching the house, where the woman was, I beheld a ghastly spectacle. The whole vault of the cranium was perfectly denuded, and the scalp hanging behind, attached to the nuchal region by a portion of skin not exceeding an inch in width. The os frontis, just above the right eye, had struck against some hard substance, sustaining a contused and lacerated wound of small size, but penetrating to the bone. From this point of impact, a rent through the scalp on either side had extended backwards and downwards, terminating at the base of the skull behind, as stated. I further found soil and cane-trash literally covering and imbedded in the raw surface of the skull, as well as the interior of the scalp.

Here was truly a frightful spectacle and a terrible wound in bad condition. The nervous shock was great, evidenced by frequent feeble pulse, shivering and cold sensations. This condition I promptly met by a full dose of whiskey and laudanum. I then ordered a plentiful supply of clean warm water, and with sponges and soft cloths patiently and deliberately washed the head and scalp, until each was thoroughly and perfectly cleansed, leaving not a particle of any extraneous matter upon the raw surfaces; after which I carefully replaced the scalp, closely shaved off the hair as much as two inches from the lines of injury, and by a few well-placed stitches brought the divided surfaces in close and exact apposition. With several thicknesses of old soft linen rags I made pledgets or compresses, saturated them with a liniment composed of equal parts of sweet oil and laudanum with a small portion of spirits turpentine, with which I covered the entire wound. Over the top of the scalp I applied a soft, smooth, dry compress, and with a long roller carefully and firmly bound down the replaced scalp, making the pressure even and uniform over the whole head. To the contused wound over the right eye I applied a thick pledget saturated with the liniment named, with instructions to renew when soiled. The roller and dressings were removed from the head only on the ninth day, when I found the union complete and perfect by primary adhesion, the only suppuration at any point being in the wound over the right eye. The few sutures were removed and the head enveloped in a handkerchief for a few days, and no further treatment was needed, except to the small wound named, which speadily healed by granulation, under the same applications. The rapid and perfect cure of this serious wound by primary union was a surprise to all who witnessed it.

I might enumerate many other cases occurring in my practice from that time down to the present year, embracing grave injuries, amputations of limbs and removal of tumors, still more clearly demonstrating the truth and success of this line of treatment of wounds, but I conceive I have said enough, and will leave this sublect at your disposal, commending my remarks to your thoughtful consideration.

Annual Report of 1883 to the Louisiana State Medical Society of its Standing Committee on State Medicine.

BY THE

Chairman: STANFORD E. CHAILLE, M. D.

Members: DRS. J. P. DAVIDSON, S. S. HERRICK, C. J. BICKHAM, P. B. MCCUTCHON, F. W. PARHAM, J. W. DUPREE, G. A. B. HAYES, and THOS. J. ALLEN.

Organized in 1878, this society held three other regular annual sessions in 1879, 1880 and 1881. The widespread and disastrous overflow having prevented the meeting in 1882, the present assemblage in 1883 becomes our fifth session and is notable by the fact that it is the first meeting ever held outside of New Orleans by the physicians of the whole State.

The annual publications of its four previous sessions amply prove that the chief object of this society has been to bind together the reputable physicians of Louisiana, first into parish societies, and then these into this State society, in order that the just influence of an enlightened profession may be concentrated upon well considered and practical ends instead of being frittered away, as is still largely done, in idle complaints and ill-digested views, in discordant and impracticable ends. This society has constantly declared, that the most important purpose of its organization was to promote State Medicine, that is, the numerous and important interests which involve the welfare of the public as well as of the medical profession. And in as much as partial laws for the benefit exclusively of doctors, or class-legislation, do not appertain to State medicine, such laws have not been and should not be advocated by this Society.

In as much as two years have now elapsed since our last effort to influence legislation, and in as much as some members have forgotten and many physicians have never known what has been attempted,—it seems desirable to preface, what it is hoped to accomplish with the General Assembly in 1884, by a brief review of what this society has attempted and of what it has done or helped to do. Such a review will show that, although less has been done than has been attempted, yet, fully as much has been accomplished as could be expected

by those who realize how gradually are developed all lasting reforms and human progress. Such a review will also serve to enforce the needed lesson that, since the results already attained have been effected by a weak organization in this society of less than one-tenth of the reputable physicians of Louisiana, all of these, if united in one strong organization, could accomplish far more satisfactory results. The varying efficiency of bodies of men to organize and thus to co-operate for the common good, is a test of the degree of their enlightenment; and those physicians of Louisiana who neglect to organize and to co-operate, and who still complain of the ignorance, indifference and lack of public spirit of the people and of their representatives, deserve the pertinent inquiry: "Why beholdest thou the mote that is in thy brother's eyes, but perceivest not the bean that is thine own eye?"

The most important interests of State Medicine were detailed by this society in the first year of its existence. Aided by able lawyers, it adopted in 1879 its platform for reforms. This should be reiterated until familiar to every physician. Initiated by us, the realization of this platform should be persistently prosecuted, even though it should require, as is possible, generations to carry it into satisfactory execution. Adopted in order to introduce it into our present constitution, this platform is as follows:

"The Legislature shall provide for the interests of State Medicine in all its departments, for public hygiene or preventive medicine, for medical education, for institutions for the sick and infirm, and for medical jurisprudence: for the establishment and maintenance of a State Board of Health and Vital Statistics for the whole State, with parish or municipal boards subordinate thereto: for the protection of the people from all contagious and infectious disease, and from all preventable causes of disease and death: for the protection of the people from unqualified practitioners of medicine, surgery, midwifery, pharmacy and dentistry: for the maintenance of the University of Louisiana, and its three departments of literature, medicine and law: for the care, education and maintenance of the destitute, sick and afflicted, of the blind,

of mutes, of idiots and feeble minded children, of the insane and inebriates, in hospitals or asylums, constructed with proper regard to health as well as comfort and the interests of morality, such institutions being rendered as nearly self-suporting as is consistent with the purposes of their creation: for the protection of confidential communications made by patients to physicians: for preventing the advertisement and sale of all fœticidal drugs or instruments, and of all drugs detrimental to the interests of health and morality: for the adequate compensation of scientific experts in all cases: for the separate trial of criminals alleged to be insane on each issue—first, that of insanity—and that adequate time and opportunity shall be given to medical experts to test the question of insanity: no persons shall be allowed to tesitify as expert witnesses to matters of scientific opinion, except those recognized as competent experts in such matters by their own profession, as organized under the laws of this State: only qualified practitioners shall be expert witnesses in the courts to medical facts; the legal duties of coroners shall be assigned exclusively to experts in law, and their medical duties exclusively to experts in medicine.

ADDITIONAL INSTRUCTIONS TO THE COMMITTEE.

If any article of the Constitution of 1879 provides that privileges, to have effect against third persons, must be recorded, the following proviso should be made:

Provided, That the fees due physicians and surgeons, the wages of nurses, and the bills of druggists and apothecaries, for professional services rendered, and medicines furnished during the last illness, shall enjoy the privilege conferred by law even as to third persons, without recordation."

In addition to the first introductory generalization in this platform, there are thirteen sentences devoted to specifications. In regard to these, the laws of Louisiana were either silent, or defective, or insufficient. What gains have been made since our platform was adopted?

By our efforts, the Convention was induced to include, in our present Constitution of 1879, substantially our introduc-

tory generalization, also three of our thirteen specifications; and, in addition, our last or thirteenth specification was disposed of so satisfactorily, that it was removed from our platform. A detailed report of the important gains secured in our Constitution was published in the proceedings of our third session (1880), and special reference will hereafter be made to the three specifications introduced into said Constitution, and particularly to those two of these which still remain unregarded by our legislators. It should not be forgotten, that our General Assemby has full power to enact the laws, which all the specifications in our platform would necessitate, even, as to those specifications, the execution of which is not commanded by the Constitution. Hence, while much was gained, nothing was lost, and our efforts for progress should be persisted in before every General Assembly which may hereafter meet. By incessant reiteration of our just demands for the common welfare, the public, their representatives and our own profession, will eventually be educated to appreciate these demands, and, year by year, progress will be made.

While this Society has good cause to congratulate itself upon what it accomplished with the convention of 1879, it has no cause for gratification in what was done for State Medicine by the General Assembly of 1880. Effort was made to induce this assembly to enact, not only such laws as were required by the new constitution, but also such laws as were required by those specifications in our platform which were omitted from said constitution. But, the assembly of 1880 was so overwhelmed with the work forced upon it by the constitution of 1879 that apparently no time could be found for, nor was any encouragement given to those laboring in behalf of the still inappreciated interests of State Medicine. However, three laws were enacted which deserve recording, viz.:

"Act No. 20. To prevent the adulteration of articles used as food; to prevent the sale of unwholesome and tainted provisions, the slaughtering of cattle, etc., for food when in an unhealthy condition, and to prevent the landing of diseased animals within certain described limits. Approved March 3, 1880."

"Act No. 32: To regulate the practice of dentistry in the State of Louisiana. Approved March 10, 1880."

"Act No. 129: To give physicians, legally authorized to practice their profession, a lien and privilege [limited to $15], for medical services rendered to any person on the crop of said person, etc. Approved April 10th, 1880."

Excepting these three acts, nothing of interest to State Medicine was accomplished by the General Assembly of 1880. It should not be forgotten, however, that the Third Annual Session of this society was not held until near the time of adjournment of the General Assembly of 1880, therefore that this society had no opportunity to exercise any other influence than that inaugurated at its second session (1879) which was in truth its first working session.

In order to influence the meeting of the General Assembly in 1882, your Committee on State Medicine presented, at your fourth session (1881) its Annual Report, which was unanimously adopted as a petition to the General Assembly. This report or petition covers twenty-six pages of your published proceeding for 1881. It advocates the adoption of laws on fourteen subjects and, in most instances, specifies in detail the laws advocated. Laws were enacted on four of these fourteen subjects, and there were four additional laws enacted on subjects of interest to State Medicine, but not advocated specially by this Society. These eight laws deserve record, and the four, which were not specially advocated and which benefit only two special localities and not the State at large, will be first recorded.

"Act No. 40: To amend and re-enact Section 1, Art. 14 of 1877, entitled "An Act to provide for the disposition of offal, garbage, night soil and dead animals within the parishes of Jefferson, Orleans and St. Bernard, and to provide for the disposition of offal droppings of slaughter-houses and dead animals in said parishes. Approved June 26th, 1882."—pp. 52–3, Acts of 1882.

"Art. No. 85: Enlarging the powers and duties of the Board of Health in the city of New Orleans, requiring the inspection of all buildings and premises *within the city limits*,

and enforcing cleanliness and an adequate water-supply on all premises. Approved July 5th, 1882."—pp. 106–9, Acts of 1882.

"Act No. 115: To provide for the punishment of person or persons removing, tearing down or destroying small-pox or yellow fever flags, in premises where such cases may be. Approved July 6th, 1882."—p. 165, Acts of 1882. This law applies, apparently, solely to the parish of Orleans.

"Act No. 121: To establish a Charity Hospital in the city of Alexandria. Approved July 6th, 1882."—pp. 168–170, Acts of 1882.

The remaining four of the eight laws, enacted in 1882, in the interest of State Medicine and specially advocated by this Society, were as follows: Act No. 31 (approved June 26th, —pp. 44–6, Acts of 1882), regulates the practice of medicine and surgery in Louisiana, after December 31st, 1882; Act No. 69 (approved July 1st,—pp. 89–90), regulates quarantine charges at the Mississippi River Station; Act No. 82 (approved July 5th,—pp. 103–5), defines and punishes the adulteration of drugs, food and drink within this State; and Act No. 92 (approved July 5th, —pp. 114–5), provides for the organization of local boards of health in the State of Louisiana. This last Act is verbatim the one advocated by this Society, as the best practicable law under present circumstances for inaugurating a system of local boards.

The Act for regulating quarantine charges is not as recommended by this Society. Our recommendation was that, in as much as the existing tax on tonnage had been declared unconstitutional, vessels should be taxed proportionately to the number of persons on board; but Act No. 69 regulates the tax by the classification of vessels, into steamships, ships, brigs, schooners, etc. Judge Monroe, of Orleans parish, has decided (see *Times-Democrat*, January 8th, 1883), that this Act is also unconstitutional, and this decision, together with several others in the United States, to similar effect, render it probable that the Act, recommended by this Society, would, if adopted, have met with the same fate. In fact, it seems that courts are not likely to sustain laws imposing any quarantine

fees on a vessel, unless the fees be for services exclusively to benefit the vessel, and not for services which benefit the public rather than the vessel. If these decisions and this conclusion prove to be correct, then the Legislature will be forced, in order to maintain our quarantine stations, to make an appropriation therefor out of the taxes paid by that public which demands these quarantine stations to protect them from communicable diseases.

Of the fourteen subjects embraced in our petition to the General Assembly of 1882, it was understood that the influence of this Society would be exerted specially and chiefly in favor of a law regulating the practice of medicine, not only because of the importance of this subject, but also because the Constitution commands the General Assembly to enact such a law; this command being one of the three specifications introduced from our platform into the Constitution. The result of this effort of our Society was the enactment in 1882 of "Act No. 31,—relative to the practice of medicine and surgery," which Act is, with a few trivial exceptions, verbatim as recommended by this Society. Those who may be disposed to criticize this Act, are referred for our justification to our published Annual Reports of 1880 and 1881, and are again reminded that, usually, there is a very wide difference between the desirable and the attainable, and that lasting reforms have very modest beginnings.

Having now completed the proposed review of what this Society has attempted and accomplished, since 1878, in behalf of State Medicine, it is claimed that the results have been fully as great as could have been reasonably expected and are sufficiently satisfactory to encourage new efforts.

Consideration must now be given the chief object of this report, which is expressed in the important question:—What shall be done at this and what at our succeeding sessions to influence our next General Assembly, which will not meet until May 14th, 1884, and, therefore, after even our next session? Your Committee on State Medicine advises you as follows:

A petition to our next General Assembly should be adopted

now: this petition should be published in sufficient number to distribute one copy to every member of the General Assembly and to the most influential physicians in every parish of this State, whether they be members of this Society or not; every physician should be urged earnestly to use his influence with his own legislative candidate or representative, in order to secure his support, in the General Assembly, in favor of the measures advocated in our petition: this petition should be published promptly and long prior to our next election, in order that candidates may be duly informed of our demands,—demands which they can be induced to heed better before than after their election, which is not to take place until Tuesday, April 17th, 1884: our petition should renew those demands, which, though unanimously approved by us, have not yet been acted upon by the General Assembly: and, in as much as we are not likely to secure favorable action upon all of our demands, either at the next or at any other single session of our Legislature, we should choose therefrom those deemed of greatest immediate consequence, and use our chief influence in favor of these preferred measures. The petition should present our various demands in their order of preference, founding this on their practicability as well as on their importance.

None of these demands are deemed of greater consequence, than the renewal of our unanimous advocacy in 1881 for a bonâ fidê State Board of Health, in place of our present so-called "Board of Health of the State of Louisiana," whose power and membership have been thus far limited almost exclusively to one single parish out of the total fifty-nine parishes of this extensive State. In this connection, all should be reminded, and especially physicians who reside elsewhere than in the single parish referred to (Orleans), that our present law gives to the Governor the nomination of four out of the nine members of the present Board of Health; that this law does not require that these four appointments shall be made from citizens of Orleans or other special parish; that, nevertheless, our present Governor, though not a citizen of said parish, has followed the precedent established by his predecessors, and

made his appointments solely from citizens of New Orleans; and, finally, that no complaint has ever been made by citizens or physicians of the country parishes, respecting this limitation of the Governor's patronage to a single parish. It is idle to expect a veritable State Board unless the country parishes can realize its utility and will insist upon their unquestionable right to adequate representation upon such a Board. Hence, whether Louisiana is to have a veritable State Board or not depends chiefly on the physicians and citizens of other parishes than Orleans.

There will now be submitted for your consideration and action the following petition to the General Assembly of Louisiana.

[The action of the Louisiana State Medical Society on this petition renders it more convenient for the publishers to interpolate at this place, as a preface to this petition, the following circular letter authorized by said Society.]

CIRCULAR LETTER TO THE LEGISLATORS, REPUTABLE PHYSICIANS AND OTHER ENLIGHTENED CITIZENS OF LOUISIANA, INTERESTED IN THE PROGRESS OF STATE MEDICINE.

The succeeding petition of the Louisiana State Medical Society was *unanimously* approved, not only by said Society at its Fifth Annual Session at Shreveport, April 5th, 1883, but also on March 30th, by the Orleans Parish Medical Society, and, on April 21st, 1883, by the N. O. Medical and Surgical Association.

The object, of forwarding copies of this petition to those who may receive it, is to give timely information of what it is desired shall be accomplished by the General Assembly, which holds its next session at Baton Rouge, on May 14th, and the members of which are to be elected on the preceding April 17th, 1884. Confidence is felt that, if no other citizens of this State than its reputable physicians should unite in bringing their influence to bear on those personal friends who are yet to be elected members of the next General Assembly,

satisfactory, if not complete, success would be secured. The progressive prosperity of Louisiana depends on the capacity of its intelligent citizens to co-operate for the common welfare. It would be specially discreditable to the medical profession, which claims superior enlightenment, if the reputable physicians of this State should prove their incapacity to co-operate in behalf of measures which are calculated to benefit every citizen of Louisiana, as well as every physician.

Every physician and every citizen, who may receive this petition and approve it, is earnestly urged to manifest his approval by his works, which will be appreciated, and not by his words which will be little valued. In order that what each one may effect may be best utilized, every recipient of this petition is requested, by the Louisiana State Medical Society, to report to the undersigned, as promptly as practicable after the election of April 17th, 1884, the names and addresses of those members elected to the next General Assembly who will, as also of those members who will not, favor by voice and vote the measures advocated in the petition.

STANFORD E. CHAILLÉ, M. D.,
Chairman of the Committees on State Medicine of the Louisiana State Medical Society and of the Orleans Parish Medical Society.
P. O. Box 1689, New Orleans.

NEW ORLEANS, May, 1883.

PETITION OF THE LOUISIANA STATE MEDICAL SOCIETY TO THE GENERAL ASSEMBLY OF THE STATE OF LOUISIANA.

Reputable physicians of Louisiana, convened at the Fifth Annual Session of the State Medical Society, held at Shreveport, April 4th to 7th, 1883, respectfully submit to the members of the General Assembly, the succeeding considerations and petition in behalf of the public welfare, as involved in the important but neglected interests of State Medicine. The General Assembly's attention to this petition is specially well deserved for the two obvious reasons that, in the first place, the medical profession is most interested in and better

informed on this subject than is any other class of citizens; and, in the second place, while each member of the General Assemby is required to "solemnly swear" that he will support the Constitution, its Article No. 178, contains a clause, neither permissive or advisory, but mandatory, and as follows: "The General Assembly SHALL provide for the interests of State Medicine in all its departments."

The present petition embraces nine subjects, which unquestionably appertain to one of the four recognized departments of State Medicine, viz: Public Hygiene, Medical Education; Medical Jurisprudence and Public Institutions for the sick and infirm,—and these nine subjects are as follows:

1. State Board of Health.

Article No. 178 of the Constitution specially commands that "The General Assembly *shall* provide" "for the establishment and maintenance of a State Board of Health." Although there is a "Board of Health of the State of Louisiana," in name, still, in fact, the General Assembly has never yet established, much less maintained, a veritable State Board of Health. The following facts render this obvious: March 15th, 1855, the law organizing the present board was enacted; its purpose was specially to establish a quarantine for New Orleans; this board was composed of nine members—six to be appointed by the Governor and to be confirmed by the Senate, and three to be elected by the New Orleans City Council; and, although the jurisdiction of this board was *limited* to New Orleans itself and to the three quarantine stations which command its maritime approaches, yet said board was entitled "The Board of Health of the State of Louisiana." From 1855 to 1883, fifteen additional laws have been enacted in reference to this board;* however, all of these laws, with two exceptions, specially to be referred to, have merely increased the power and efficiency of the board as a quarantine and municipal board of health for New Orleans *alone*, without extending its jurisdiction. Successive govern-

* The total sixteen laws referred to are Acts Nos. 336 of 1855; 4, 215, 269 of 1858; 14 (Extra Session) of 1870; 68 of 1876; 14, 37, 80, 84 of 1877; 40, 85 of 1880; 31, 69, 82, 92 of 1882.

ors and senators, from 1855 to the present day, have shown their appreciation of the fact that this board was a municipal and not a State Board, by invariably appointing and confirming solely citizens of New Orleans as its members, thus uniting with the City Council to form a board exclusively of such citizens. The General Assembly likewise showed its appreciation of the same fact by Act No. 80 of 1877, which decreased the slight resemblance to a State Board, then presented by the present board, in as much as it reduced the appointees of the Governor from six to four members, and increased the appointees of the City Council from three to five, thus giving the city appointees a majority on a board which our governors have continued to form exclusively of citizens of New Orleans. It is a legislative fiction to denominate a board, thus restricted in membership and power to a limited section of this State, the "Board of Health of the State of Louisiana," and it is a legislative abuse to confer on a board, thus constituted, authority over the extensive and numerous population and the diversified interests of this great State.

However, in spite of the Constitution, the last General Assembly protracted this fiction and perpetrated this abuse, by enacting two laws which gave to the present board, for the first time since its origin, authority which should be exercised solely by a veritable State Board. For, Act No. 31 of 1882, regulating the practice of medicine throughout the State, makes this board the executor of this law; and Act No. 92 of 1882, providing "for the organization of local boards of health in the State of Louisiana," requires these to be "auxiliary to and to act in harmony with the State Board of Health" and to make thereto their annual reports. These two Acts, thus extending the authority of this *municipal* board throughout the State, render it all the more imperative that the General Assembly shall obey the Constitutional mandate to establish and maintain a veritable "State Board of Health." And, in as much as Act No. 92 of 1882 empowers New Orleans, as every other locality, to organize its own local board, there remains still less excuse for designating its municipal board

as the State Board, and for substituting the former, which is not required by the Constitution, with the latter which is so required.

The facts and views now stated justify the following

RECOMMENDATIONS.

A veritable State Board of Health should be at once established. To this board should be transferred all the power and authority outside of the parish of Orleans, which existing laws confer on the present so-called "Board of Health of the State of Louisiana;" and, to a New Orleans Board of Health, organized exclusively by the city authorities, should be transferred all the power and authority which existing laws permit the present Board of Health to exercise within the limits of the parish of Orleans. The members of a State Board should represent every section of the State, either by congressional districts or by other sub-divisions, which should not be less than seven, and to no single locality should be given a more numerous representation than its relative population and taxation entitle it to. A large minority certainly and probably a majority of the members should be reputable physicians, and there should be a civil engineer, a lawyer, and a representative of commercial interests, as members of this board. All members should be selected for, among other considerations, their knowledge of and interest in sanitary matters; and their term of office should not be less than four years. While the governor or other State authorities should have the appointment of all members, it is believed that the medical profession, as represented by the Louisiana State Medical Society, should have the nomination or a potent influence in the selection of the medical members of the State Board, as is the case in Alabama, Mississippi, North Carolina, South Carolina and probably some other States. The State Board should be authorized to select a small executive committee, whose members could, because of proximity of residences, readily assemble at any time; and this executive committee should be given, especially in emergencies, all the power and authority of the full board,

until such time as a quorum thereof should hold a meeting.

Such a State Board should be established, and would require for its maintenance an annual appropriation, adequate for an efficient quarantine, for all other duties imposed by law, and for the salaries of the President and Secretary of the Board, as also for the travelling expenses unavoidably incurred by the members. An appropriation, inadequate for these purposes, would result necessarily, in a State Board, representing solely another legislative fiction. If established and maintained, as indicated, then, and then only, will be fulfilled the solemn oath of members of the General Assembly to support that Constitution which declares that this Assembly "*shall provide for the establishment and maintenance of a State Board of Health.*" In addition, Louisiana will then have a State Board which would command the respect and confidence of its neighbors, a board which would develop a stronger and more wide-spread interest in sanitation throughout the State, and a board which would eventually greatly promote the vital cause of public health and, therefore, of public wealth.

In any case, whether the General Assembly coincides or not with the views above advocated, it is respectfully insisted that there are two provisions of our present laws which should be amended.

Two Amendments.

First—Appointment of Members of the Board of Health.

The first sentence, Section 1, Act No. 80, p. 116, of the Acts of 1877, reads: "The Board of Health of the State of Louisiana, shall hereafter consist of nine members, four of whom shall be appointed by the Governor, by and with the advice and consent of the Senate, and five of whom shall be *elected* by the Council of the City of New Orlaans." It is earnestly urged that this sentence shall be so amended that the last fourteen words shall be made to read, "*five of whom shall be appointed by the Mayor, by and with the advice and consent of the Council of the City of New Orleans.*" The same principle is involved in the selection of both State and city members, and the method adopted in the former should be also applied to the

latter. It has long been proverbial that "corporations have no souls," all contrivances by which official responsibility is divided and diminished are most objectionable, and while *the election* of city members *by the Council* is wrong in theory, experience proves it to be mischeivous in practice.

Second—The Resident Physician of the Mississippi River Quarantine Station and his Salary.

Misplaced responsibility, as well as divided responsibility, is most objectionable. A striking instance of misplaced responsibility occurs in the first sentence, sections 3042 and 3039, pp. 592-3 Rev. Stats., 1870, wherein the law directs that the resident physician of the Mississippi River Quarantine Station shall be *appointed by the Governor;* that his salary shal be $5000 per annum, and that he shall be authorized to employ an assistant at $2000 per annum. It is urged that public opinion, and also the fundamental principle on which depends the existence of a board of health, unite in fixing on the Board of Health, rather than on the Governor, the responsibility for the administration of the Mississippi River Quarantine Station; and therefore that the law should be so amended, that the Board of Health should have the same power to appoint, fix the salary of, and control the officers and employés at this station, that said Board has, in respect to all other sanitary officers and employés, whether these be located in New Orleans or at all the Quarantine stations other than the one at the Mississippi River. (See Sec. 3041, p. 593, Rev. Stat., 1870.) It is deemed important that,—if the present laws should be so amended as to confer on the Board of Health the power to appoint the Resident Physician of the Mississippi River Quarantine Station, and also his assistant—the amended law should not fail to confer on the Board, at the same time, the power to fix their salaries; for, if this were neglected, there is reason to fear that the appointment even of the members of the Board would be politically so managed as to be dependent on and subordinate to their pledges in behalf of some favored candidate for the office of Resident Physician of the Mississippi River Quarantine Station,—an office which now has a

salary of $5000, now confers another salary of $2000, and now distributes other patronage; so that this one office rivals, in respect to patronage, that Board to which it should be entirely subordinate.

II. Confidential Communications.

Art. 178 of the Constitution also specially commands that, "the General Assembly *shall* provide"—"for protecting confidential communications made to medical men by their patients while under professional treatment, and for the purpose of such treatment."

Several States have laws which secure this protection. Among these States are New York and Iowa, and their laws are as follows, the law of Iowa deserving the preference.

The New York law reads: "A person duly authorized to practice physic or surgery shall not be allowed to disclose any information which he has acquired in attending a patient in a professional capacity [without the consent of such patient], and which information was necessary to enable him to attend in that capacity."

The Iowa law reads: "No practising attorney, counselor, physician, surgeon, minister of the gospel, or priest of any denomination, shall be allowed, in giving testimony, to disclose any confidential communications properly entrusted to him in his professional capacity, and necessary and proper to enable him to discharge the functions of his office according to the usual course of practice or discipline. Such prohibition shall not apply to cases, where the party, in whose favor the same are made, waives the rights conferred." See the "Code of Iowa, 1873," p. 565, Sec. 3643.

Among many criticisms on the operation of these laws, none have been observed unfavorable to them.

III. Sanitary Instruction.

All men, who have devoted study to the subject, have became convinced that not only public wealth but also public morality depend to a large extent on public health, and that the progress of this depends on gradually replacing the pres-

ent gross ignorance and baneful prejudices of the people with sound knowledge of at least the elementary laws of Hygiene. On this subject, that profound philosopher, Herbert Spencer, teaches as follows:

"Knowledge which subserves direct self-preservation by preventing loss of health is of primary importance. We do not contend that possession of such knowledge would, by any means, wholly remedy the evil. For, it is clear, that in our present phase of civilization, men's necessities often compel them to transgress; and, it is further clear, that even in the absence of such compulsion, their inclinations would frequently lead them, spite of their knowledge, to sacrifice future good to present gratification. But we do contend, that the right knowledge impressed in the right way, would effect much; and we further contend that *as the laws of health must be recognized before they can be fully conformed to, the imparting of such knowledge must precede a more rational living*—come when that may"

On this same subject the distinguished moralist, the Rev. Chas. Kingsley, declared that, "the art of keeping one's self alive and well," "will, in some *more civilized* age and country, be held a necessary element in the school course of every child, just as necesary as reading, writing and arithmetic."

In fine, at the present day all those most eminent as students of educational problems unite with sanitarians in insisting that the knowledge of Hygiene should be popularized; that it should be taught sufficiently to convince men that health and disease are, to large extent, in their own hands; that, among other means, to this end, there is one which is indispensable; and that this one is the teaching of Hygiene in all schools, and especially in the public schools.

A beginning must be made and the sooner the better for the common weal of Louisiana, More than thirty years ago Massachusetts* made its beginning. Inasmuch as this has borne good fruit, the General Assembly of Louisiana is respectfully urged to adopt some such law as the one enacted by Massachusetts in 1850, which law is as follows:

*Indiana and no doubt other States require the study of Physiology and Hygiene in public schools.

"SECTION 1. Physiology and Hygiene shall hereafter be taught in all the public schools of the State, in all cases in which the School Board shall deem it expedient.

"SEC. 2. All school teachers shall hereafter be examined in their knowledge of the elementary principles of Physiology and Hygiene, and in their ability to give instruction in the same.

"SEC. 3. This act shall take effect on and after the —— day of ——, 18—."

IV. COMPENSATION OF EXPERTS.

The question, whether a court can force a medical expert to testify without securing him adequate compensation, has in recent years excited so much interest that medical societies have even resolved to raise the issue and force the courts to a decision. This was done in Indiana, and the following facts are pertinent to this question. English courts have decided that a scientific expert need not attend a subpœna, that his testimony cannot be forced, and that he must be compensated. In 1877 the Supreme Court of Alabama decided to the contrary; but also in 1877, a circuit court of West Virginia concurred in the English view; in 1878, Judge Clark, in the case of the "State of Texas vs. Jasper Weathers," decided that he "knew of no law to force a physician to attend court, and testify as an expert, without compensation;" and, also in 1878, the Supreme Court of Indiana, reversing the decision of a lower court, maintained the expert's right to compensation. The Iowa Code of 1873, page 593, sec. 3814 (and probably the laws of some other States), wisely provides that "witnesses called to testify only to an opinion, founded on special study or experience in any branch of science, or to make scientific or professional examinations, and to state the results thereof, shall receive additional compensation, to be fixed by the court, with reference to the value of the time employed, and the degree of learning or skill required." This law grants all the medical profession demands, and its enactment by the General Assembly of Louisiana is urgently recommended.

V. Medical Expert Testimony.

All authorities on this subject, whether medical or legal, have long united in denouncing the inefficient methods, perpetuated by Anglo American laws, for securing the "best attainable evidence" respecting the *opinions* of *skilled* witnesses, in reference to the *conclusions* which medical science may be justified in drawing from the medical *facts* in the case. Under our laws, not only are plaintiff and defendant permitted to summon such expert witnesses as each may see fit and as each may find susceptible to prejudice and even to bribery, but also to summon so-called experts, who, notoriously to their own profession, are *not experts* in any proper sense of the word. The inevitable result is that nearly every great trial, whose issue depends on the evidence of medical experts, brings to light proofs of scandalous partisanship on the part of these witnesses, and disgraces the science of medicine as well as of law. Although this evil has been often and justly denounced and although many remedies have been proposed, it is none the less true that neither Great Britain nor any one of the United States have yet succeeded in adopting any satisfactory remedy for the evil.

A solution of this problem deserves the consideration of the statesmen and legislators of Louisiana. It is believed, by those who have given most study to this subject, that justice would be better promoted by limiting expert witnesses to those selected by the courts or to those selected by the mutual agreement of the parties to the suit.

VI. Trial of Persons Accused of Crime, and Alleged to be Insane.

The legal methods adopted for the trial of persons accused of crime when alleged to be insane are faulty, and the following consideration are urged upon the attention of the General Assembly:

It is conceded that, within this century, unfortunates have been legally murdered for illegal acts, the product of disease and not of a "vicious will." To prevent these "bitter mockeries of justice," Anglo-American law, so jealous of the "liberty

of the subject," fails not only to provide him, when his life is imperiled through brain-disease, with competent experts, but also to provide these with proper time and opportunity to decide a question so difficult as doubtful sanity. It is not strange that decisions reached through such defective means should cause constant dissatisfaction, nor that this should have been more serious prior to the establishment of State Lunatic Asylums; for it then occurred that he who might be acquitted of homicide, because of insanity, was freed by the law, and permitted to live a constant danger to society.

Maine, in 1847, wisely enacted that "when any person is indicted for a criminal offense, or is committed to jail on a charge thereof, . . . any judge of the court before which he is to be tried, when a plea of insanity is made in court, or he is notified that it will be made, may . . . order such person into the care of the superintendent of the insane hospital, to be detained and observed by him till the further order of the court, that the truth or the falsity of the plea may be ascertained." New York, in 1874, enacted laws which provide for "an investigation of the sanity or insanity of the accused, as a separate and independent proceeding from the trial of the indictment," and, after such preliminary investigation, "leave the question of the guilt or innocence of the accused to be tried by itself. Thus have Maine and New York* lessened the frequent difficulty of choosing between "inhumanity to disease, and indulgence to crime;" and the action of these States deserves the serious consideration of this and of other States destitute of equally wise laws.

VII. The Coroner and His Duties.

The office of coroner, with the duties thereon imposed, owe their persistent existence chiefly to hereditary prejudice and to barborous medieval precedent. The proper discharge of these duties require, at the present day, much special medical knowledge as well as considerable knowledge of the law. Those most expert in the former, are almost necessarily the

*See Sec. 1, Chap. 137, p. 898, "Rev. Stat. Maine, 1871," and "Laws of New York," Chap. 446, pp. 567-571 of 1874, and the amendment thereto, viz.: Chap. 574 of 1875, and Chap. 267 of 1876.

least expert in the latter and, in fact, our coroners are generally inexpert in both. A remedy for the incongruous and inefficiently discharged duties of the coroner was first adopted by Massachusetts, in 1877. The coroner was *abolished* and the "Medical Examiner" was substituted in his place: to the medical examiner were transferred all of the *medical* duties previously imposed on the coroner while all of his *legal* duties were transferred to the court. This reform has given universal satisfaction, it has greatly promoted the administration of justice, it has proved more economical and it has stimulated the culture of medical jurisprudence.

The General Assembly has the power to confer on Louisiana these same benefits. Eminent lawyers of this State unite in the opinion, that the Massachusetts "Act to Abolish the Office of Coroner," etc., of May 9th, 1877, can be readily so modified, that articles 118, 120 and 147 of our Constitution, with the clause therein that the coroner "shall be a Doctor of medicine" would not be violated, and yet, that the fundamental principle of said Act——viz: the restriction of medical duties to doctors and of legal duties to lawyers—would be established. Such a modification of the Massachusetts Act and of the subsequent amendments thereto is respectfully urged upon the General Assembly.

VIII. Public Institutions for the Sick and Infirm.

Respecting these institutions, the following views, urged in the report of 1881, are again insisted upon:

"The two principal needs are, funds adequate for their proper maintenance, and competent as well as experienced officers who can never be permanently secured as long as their appointment and continuance in office depend in any wise on partisan politics. It is monstrous, that even the chief of a charitable institution should depend, for his appointment to office, upon the political support he may have given to this or that candidate."

In addition, the following recommendations of the Louisiana "Prisons and Asylums Aid Associations" are fully endorsed by the Louisiana State Medical Society, as deserving the favor-

able consideration and prompt action of the General Assembly. These recommendations are embraced in the following official communication :

PRISONS AND ASYLUMS AID ASSOCIATION,
NEW ORLEANS, LA., March 14, 1883.

Dr. Stanford E. Chaillé, Chairman Committee on State Medicine, Louisiana State Medical Society.

SIR : In the matter of State Medicine it occurs to me to suggest, that there is pressing need of legislation of a reformatory kind touching the prisons and asylums of Louisiana.

The sanitary condition of all the lock-ups, jails, prisons and asylums, public and private, should be ascertained by medical men, not officially connected with them, and reports made to the Governor of the State at least quarterly. The physicians making the reports should be required to show the actual sanitary condition of the institutions as to persons, buildings, appurtenances and supplies, according to a form covering the subject in the minutest particular. The appearance of typhoid fever or other filth or preventable disease should be noted as well as the supposed cause thereof. The Governor should have, under certain defined restrictions, power to dismiss officers who may, through ignorance or inattention to proper rules, cause sickness or death to befall any inmate of a locked institution ; and he should have power to correct evils arising from improper construction, defective drainage, etc., of buildings for the detention of persons under city, parish or state authority, where police juries or similar organizations fail to remedy the evils complained of after having had proper official notice.

Rules and regulations for the government of prisons and asylums should be enacted in law. Not more than one person, on sanitary ground, should be allowed in one cell at the same time in any place where arrested persons are detained or criminals are undergoing the sentence of a court. Punishment of a prisoner by a keeper, for the infraction of rules, should be limited by law to restriction of food, drink and light ; and should only be administered under the supervision of the attending physician, who should be required to make a record

of the date, severity of the infliction, and the after ill effects, if any, in a book kept for the purpose. Physicians, officially attending prisons and asylums, should be required to see the inmates daily and make a permanent record of all prescriptions.

All insane persons should be removed from jails, parish prisons and other places, except duly licensed private asylums, to the State Asylum at Jackson; and it should be unlawful to detain any insane person in a parish prison or other similar place more than ten days.

Respectfully yours,

W. R. LYMAN,
President Prisons and Asylums Aid Association.

IX. Practice of Pharmacy.

Finally, the General Assembly is respectfully solicited to enact the "proposed pharmacy law adopted at a special meeting of the La. State Pharmaceutical Association, Monday May 15th, 1882." It is "An act to prevent incompetent or unauthorized persons from engaging in the practice of pharmacy: also to regulate the sale of poisons: to prevent and punish the adulteration of drugs, medicines, medicinal preparations and chemicals: and to create a Board of Pharmacy for the State of Louisiana." The abuses implied in this title are well known to the medical profession, and it is believed that the proposed act is wisely designed to abate them.

The preceding Annual Report of the Committee on State Medicine having been submitted, the society thereupon unanimously adopted the following resolutions:

1. *Resolved*, that the Annual Report for 1883 of the Standing Committee on State Medicine be referred to the Committee on Publication for publication in the Annual Proceedings, and that so much of said report, as is devoted to the petition to the General Assembly, shall be published in separate pamphlets to the number of 1000, provided that the funds of the association prove to be sufficient to defray the expense thereof; and, if insufficient, then such number of extra copies shall be published as can be paid for.

2. The revision and proof-sheets of said petition shall be submitted to the Chairman of the Committee on State Medicine, and he is authorized to add to it any manifestly needful preface and amendments.

3. Copies of the petition shall be distributed by the Corresponding and Recording Secretaries to each member of the General Assembly of 1884 and to the most influential physicians in every parish of Louisiana. Not less than 200 of the 1000 proposed copies shall be reserved for distribution to the members of the General Assembly of 1886.

4. The Chairman of the Committee on State Medicine is authorized to have those copies of the petition, to be distributed to physicians, accompanied by a circular letter, requesting them to use their influence on legislative candidates in favor of the objects of the petition, and to report to said Chairman the results anticipated as soon as practicable, and it is earnestly requested that such reports may be made not later than May 1st, 1884.

Ordinances Recommended to Local Boards of Health.

The following report by Dr. D. R. Fox, of Plaquemines Parish, having been referred to the Committee on State Medicine, is approved, and is respectfully referred to the appropriate committee for publication.

STANFORD E. CHAILLÉ, M. D.,
Chairman.

"I herewith present, to the Louisiana State Medical Society, a report of the Health Ordinances, which were laid before the local Board of Health of Plaquemines Parish by the chairman of its committee. I submit them for your approval, and for *your* recommendation, to the police juries of the different parishes of the State (acting as local Board of Health), that said boards adopt them.

Ordinance I.

Section 1. The local Board of Health shall appoint a registered physician as Health Officer of the parish.

Section 2. The Health Officer shall be authorized to appoint any and every registered physician as a distinct health officer.

Ordinance II.

For the prevention of *small-pox* and other contagious diseases.

Section 1. The local Board of Health shall request planters to provide a suitable dwelling for quarantine, in case of the occurrence of small-pox or other contagious disease; said building to be furnished with articles necessary for the sick.

Section 2. The Health Officer shall be authorized to provide a suitable place for quarantine in any settlement or on any plantation, where the affected person, head of family or planter, is unable to furnish necessary appartments; the expenses of such place to be defrayed by the local Board of Health.

Section 3. On the occurrence of small-pox or other contagious disease, the head of a family, planter or agent of a plantation, shall be required to report immediately to the district Health Officer, who shall visit the premises and cause the affected person to be removed to the quarantine prepared, over which he shall place a yellow flag and he shall provide suitable attention at the expense of the local Board of Health, if the affected person be not able to defray such expense. If able to defray the expence, he may be quarantined at his own dwelling, in which case the attending physician shall immediate notify the Health Officer, who shall visit the patient, quarantine him and raise the yellow flag over the dwelling.

Section 4. Should the head of a family, planter or agent fail to give notice as required by section 3, he shall be fined by the local Board of Health not less than——nor more than ——dollars; said fine to be collected before the nearest Justice of the Peace, and to be appropriated to the defrayment of the expenses of the local Board of Health.

Section 5. The employer or property-owner shall require every employé to show evidence of vaccination; if he cannot, the employer shall require him to apply to the Health Officer for vaccination.

Section 6. It shall be the duty of the Health Officer to visit the public schools and vaccinate all those who cannot show evidence of vaccination.

Section 7. The fee for vaccination shall be fixed at ————cents.

ORDINANCE III. VITAL STATISTICS.

Section 1. It shall be the duty of the Health Officer of each district to keep a book for the purpose of registering the births, marriages and deaths in his district.

Section. 2. Every head of a family shall, in case of the death of any of its members or of any one residing on his premises, procure a mortuary certificate from the attending physician. If there was no attending physician, the death shall be reported immediately to the district Health Officer, who shall, after due inquiry into the cause of death, furnish the certificate and register the same. If it be known or there is reason to suspect that death has been produced by criminal cause the Health Officer shall notify the coroner.

Section 3. If a mortuary certificate is signed by an unregistered or illegal practitioner of medicine, the Health Officer shall report the same to the local Board of Health.

Section 4. The birth of every child shall be reported by the head of the family, *within thirty days of its occurrence, to the Health Officer for registration.* In case of failure to comply with the above law, the delinquent shall be fined not less than $——, nor more than $——.

Section 5. The certificate of each marriage shall also be reported to the Health Officer, for registration, within thirty days. In failure whereof, the parties shall be fined not less than five, nor more than ten dollars—these fines to be collected by any justice of the peace, and turned over to the local Board of Health for defraying its expenses.

Section 6. The fee for the registration of each birth, marriage and death, shall be fixed at————cents, to be paid to the Health Officer.

Section 7. The Health Officer shall make quarterly reports to the local Board of Health, whose secretary shall furnish, every quarter, a copy of the same to the State Board of Health.

ORDINANCE IV.

Section 1. Should any practising physician meet with a case whose diagnostic symptoms resemble those of yellow fever, he shall immediately report the same to the Health Officer, who

shall visit the patient and consult with the attending physician; if the case be decided to be "yellow fever" or to be a suspicious case, the Health Officer shall report the same without delay to the State Board of Health.

ORDINANCE V—QUARANTINE.

Section 1. Should any one visit a person while in quarantine, thereby exposing himself to contagion, he shall be fined not less than——, and not exceeding————dollars, and shall be placed in quarantine not exceeding a period of fourteen days.

D. R. Fox, M. D.,
Delegate of Plaquemines Parish Medical Society."

TRANSLATIONS.

ANÆSTHESIA IN OBSTETRICS.

By Dr. JUST. LUCAS-CHAMPIONNIERE. [Translated by D. C. HOLLIDAY, M. D.]

The administration of chloroform to women in labor, is one of the most interesting subjects to obstetricians in general practice.

It is a well-established fact, that if the majority of our confrères are obliged to allow a large number of their female patients to go through labor without assistance, there is a certain number where the use of chloroform would be easy, and others when its use becomes a necessity.

It must be admitted that we are at present without a recognized and satisfactory guide on this important point.

Many trifling publications have appeared. *Campbell* published the first part of an interesting pamphlet on this subject, but, unfortunately, death prevented its completion.

A number of articles have appeared from time to time; some good ones among them we might mention, especially an excellent thesis by one of our former pupils, Dr. Despian, entitled "*Etude Clinique du Chloroform dans les Accouchements Naturels*, 1879."

The question, however, is somewhat neglected, and we hail with pleasure the recent publication of an excellent thesis of 350 pages on this interesting subject by one of the distinguished pupils of our Parisian hospitals, *Dr. Dutertre*, entitled *de l'Emploi du Chloroform dans les Accouchements Naturels.*

This work treats fully of the history, the physiology, and all details of the use of anaesthetics in obstretrics.

The author, with singular tact, has purposely and wisely avoided too extended clinical discussion, for the excellent reason of his own youth; nevertheless, this volume contains all that is necessary for any one to make an exhaustive study of the subject. Everything is clearly expressed with great originality in style, which in nowise detracts from its interest.

M. Dutertre having carefully studied the physiology of his subject clearly demonstrates the great necessity of the use of *pure chloroform*, an idea which we ourselves have recently called special attention to.

The perusal of this work brings forcibly to our minds the similarity of our teachings on this subject, and we cannot but think that our readers will thank us for the further discussion of those practical and clinical facts bearing on this subject without a repetition of what we have already published.

Those authors who deny the practicability and usefulness of producing in a woman during labor a semi-anaesthetic condition compatible with consciousness, have done so without sufficient practical experience.

All discussion falls to the ground when disproven by extensive clinical trial and experiment; such has been my course not only in private practice, but in the wards of one of the most extensive hospitals in France.

The method of using anæsthetics must differ essentially from that usually employed during ordinary surgical operations. In exceptional cases the inhalation must be slow and progressive.

Ordinarily from ten to twenty minutes is required to produce calmness, and a semi-anaesthetic condition; this is a result extremely difficult, not to say impossible to obtain, unless the patient is docile and willing.

Some women require but an extremely small quantity of the anaesthetic—twenty to thirty grammes for several hours. However, should the condition of semi-anaesthesia be required to be kept up for many more hours, from 60 to 100 grammes will be necessary.

When I order chloroform I usually divide it into two vials, 50 grammes each, and I rarely find it necessary to employ more than one vial, unless operative interference is required and it becomes essential to make anaesthesia complete.

For a long time I taught that some women required much larger quantities of chloroform to produce the same effects, say 100, 150 to 200 grammes. But since I paid attention to the *quality* of the chloroform used, now only prescribing the purest to be obtained, I find these differences far less marked.

Indeed, the attempt to produce semi-anæsthesia by the use of ordinary chloroform is to court failure.

There are some women, in whom, without producing positive muscular relaxation, it is necessary to push the anaesthesia to a partial loss of consciousness before perfect calm is reached.

In case of necessity this is productive of no ill effects. I have myself maintained a state of complete anaesthetic insensibility, or coma, varying from three to seven hours without danger.

Among other cases I will cite one, where I performed Porro's operation, on a woman who had already been fully under the influence of chloroform for three hours; the operation required one full hour for its completion, and the patient recovered without a bad symptom. Here, there was the absorption of 370 grammes of chloroform.

I merely mention this to show that large quantities are often tolerated. I have already stated, that the period of dilatation of the uterus was frequently appreciably shortened by the early use of chloroform; hence my rule is never to wait for the expulsive stage only, for commencing its use.

No definite time can be fixed for the continuance of anaesthesia; this necessarily varies in different cases. Two or three hours are usually sufficient; eight or nine hours, or more, may become necessary.

In many of those cases requiring a prolonged use of the anaesthetic I have carefully followed up their subsequent history, and, in no single instance, have I been able to discover any injury either to mother or child.

Is the use of chloroform during labor absolutely without danger? This may be positively affirmed, if used in the manner we have pointed out.

Does this mean that no precautions are necessary in its use? Most certainly not. It is not, however, because death is at all to be dreaded in its use.

M. Dutertre in his excellent thesis shows with what eagerness the opponents to the use of chloroform, detail facts and observations in support of their position, which upon careful examination are proved to be fallacious, and often even ridiculous.

Those, however, who make a daily use of chloroform recognize that they often meet with threatened accidents which should never be neglected, showing individual idiosyncracies forbidding its use.

No one more than myself has insisted upon these peculiarities and our readers are already fully aware of my views, elsewhere expressed.

According to their peculiar willingness to adopt or reject the method of using chloroform advised, some authors recognize more or less cogent reasons for its indication.

It may be stated briefly, that pain is the only true indication; where pain is really severe, or where it is really unbear-

able; whenever pain is *excessive*, no matter at what stage of labor, recourse may be had to chloroform.

Its early employment undoubtediy accelerates, rather than retards, the progress of labor, for the excellent reason that the uterine contractions subsequent to the use of the anaesthetic soon revive after a period of marked relief, and continue with more regularity and force.

A certain degree of rigidity of the cervix, readily yields to the effect of chloroform, but this happy effect cannot always be expected if this rigidity has been allowed to continue for many hours. When a woman in labor has suffered intense pains for a long time, it becomes the duty of the medical attendant to administer chloroform. Often in these cases the necessity for *immediate* effect renders it imperative to push the chloroform to perfect anæsthesia, for it is a recognized fact that in a woman thoroughly enervated by long suffering it is much more difficult to obtain the satisfactory effect of chloroform.

The contra-indications to the use of chloroform have been detailed by many authors with such fanciful precision as to show that they are not the result of experience.

Thus a cardiac affection is considered a contra-indication to its employment.

It has been my good fortune to have had many excellent opportunities to prove the contrary, and I shall proceed to mention one among many cases.

The subject was a lady affected with a congenital affection of the heart, when by the judicious use of chloral pregnancy had been prolonged to full term, after a series of previous miscarriages. Thanks to the early use of chloroform every stage of labor was accomplished with ease and rapidity, notwithstanding a rather stormy beginning, and by the application of the forceps at the inferior strait she was delivered of a child, weighing upwards of 4 kilogrammes.

It is very certain that to relieve fruitless effort and prevent continued muscular contractions, is a positive benefit to the heart.

A dense pulmonary affection may be a contra-indication; here the physician's responsibility becomes much greater.

Pulmonary lesions may be rendered threatening, if the anæsthetic be pushed too far. Nevertheless, I have frequently used chloroform freely in different stages of phthisis, and once even during the course of pneumonia with the best possible result both for mother and child.

Are any accidents to be feared? I have mentioned phenomena of apnœa, many of which are undoubtedly atrributable to the bad quality of the chloroform.

However, I have no doubt that rare and exceptional cases may be met with.

Inciting the thorax and insisting upon free respiratory efforts, on the part of the patient, are followed by their rapid disappearance.

Can vomiting be the result of its protracted use? This is not absolutely impossible, yet I have rarely seen it; but I have frequently seen chloroform put a stop to obstinate vomiting during labor.

Possibly the most important objection made against the use of chloroform is that it favors the occurrence of hemorrhages.

A careful examination of the testimony of various authors proves that their opinions are simple allegations rather than established facts.

A careful review of our own observations does not at all corroborate the truth of these allegations.

On the contrary, if we did not hesitate to assert facts without proofs, we would be inclined to believe that chloroform rather prevents the repetition of useless uterine contractions, and puts the patient in better condition for permanent uterine contraction. This appears to be the result in a number of cases.

The same may be said with regard to the puerperal condition. Not only has it been equally satisfactory, but the return to health has often been more easy and rapid.

Another *theoretic* objection has been raised, claiming the deleterious effect of chloroform on the infant. First, the patient rarely takes much chloroform; however, admitting that she took a great deal, I have never, in a single instance, noted any injurious effects on the child. A fact too, worthy of remembrance, is that a new born infant bears chloroform very well.

It is probable that anæsthesia in obstetrics might be produced by the greater number of recognized anæsthetics. I, myself, have only tried ether, and the bromide of ethyl.

Both have appeared to me inferior in action to chloroform. Ether, without a special apparatus, fills the room with dangerous vapor, its action, too, is too slow. Bromide of ethyl emits a nauseous vapor, very disagreeable even to the accoucheur himself; its action is much slower, and not by any means less dangerous than chloroform, on the contrary, notwithstanding the hopes entertained of its many advantages, by its early advocates, the record of its use in general surgery has been that of frequently producing most formidable accidents.

In general practice, it should be borne in mind, that chloroform used to produce partial anæsthesia, and pushed to *complete* anæsthesia where occasion requires it, is of such great use that the accoucheur should never be without it. The chloroform used should always be chemically pure.

At the same time that I always have pure chloroform at my disposal, I also provide myself with reliable *ergotine*—whether we simply use it hypodermically in case of hemorrhage, or where you make a systematic use of it as I do, after all deliveries.

After complete anæsthesia, the use of *ergotine* is far more reliable than any preparation of ergot.

At the present day it is by no means difficult to obtain pure *ergotine* in any country. The one of greatest celebrity is that of Boujean, which I employ according to the annexed formula:

℞ Ergotine..... 2 grammes.
Glycerine }
Water } .....aa 15 grammes.

We habitually use one to two syringefuls (Pravaz's) of this solution; in rare cases 4 to 5 may be required.

Yvon's ergotine is more simple in its use, it is employed pure. One gramme, or one of Pravaz's syringesfull, is usually sufficient, but I have often been obliged to use 3 or 4; its action, when used in this quantity, should be carefully watched. Armed with these two remedies the accoucheur is enabled to render labor bearable, simplifies and frequently shortens its duration, and favors convalescence by his intelligent assistance.—*Journal de Médecine et Chirurgie Pratique.*

A CASE OF HYPERTROPHIC CERVICAL PACHYMENINGITIS.

By Dr. G. Montagu.

(From *Revista of Ciencias Medicas of Barcelona.*)

Translated by Dr. John Dell'Orto.

(In publishing the translation of this article, we purpose to make our readers acquainted with a very curious nervous disease seldom met in common practice and in medical literature.

Dr. Charcot, the eminent professor of La Salpêtrière of Paris, was the first who called the attention of the profession to the subject. The ensemble of phenomena points to some injury, more or less extensive, of the cervico-cordal spine. The disease has intermittencies, as almost all nervous diseases have. One of its peculiarities (that we may say to be characteristic or pathognomonic) is its spontaneous cure and complete disappearance of all the symptons, no matter how serious and grave they may have been, after having lasted a more or less long lapse of time, and such was the result in the case in question.—*Note of the translator.*)

The patient is a lady forty-two years old, of a strong and good constitution. She is a widow, and never had any disease in her life. She missed her courses at the age of thirty. When I saw her for the first time—at the end of July, 1877—she had been sick six months.

She said that the disease commenced with slight pains at the occiput, soon followed by a feeling of tightness at the nape of her neck, and rigid contractions of the muscles of the neck, extending to both arms. Later the pains became more violent, causing a general nervous excitation, and a sensation of excessive heat, and obliging her to keep the bed the most part of the day.

In fact, at my first visit, I found matters getting worse; her countenance bore the signs of great misery and suffering —the rigidity of her neck, the intense pains of the back of the neck and of the arms, the high temperature and acceleration of the pulse, indicated to me, that she was under the influence of one of those paroxysms to which she was subject during the last six months. Upon placing my hands on the spine, she experienced a sensation as of a bruise through all the tract of the cervico-dorsal bulb. Her bowels were constipated; urine normal; no appetite.

The paroxysm slowly passed away, but the pains (though less severe) continued, always affecting the same places.

Meantime, the disease was steadily and gradually progressing. While the woman was lying down, she could apparently move her extremities, but she was neither able to take hold of any object with her hands, nor to stand on her feet, without any assistance.

The act of walking was performed by short steps, and by stretching the sole on the floor, as if her ankle-bones were tied by a rope. The intervals of rest were becoming shorter; the sensibility of the skin was diminishing, while the slightest pressure on the muscular masses caused acute pains, so as to render the handling of the patient very difficult. Spasms then appeared, involving like a band the principal muscles of the thorax and abdomen, and making the recumbent position impossible. During many days she was obliged to sit on a high-backed chair.

The left hand commenced to be deformed; the first phalanges became forcibly extended and contracted at an acute angle on the back of the metacarpal bones; while the second and the third were flexed; there was at the same time a slight *amiotrophia* of the thenar, and hypothenar muscles.

The same deformity seemed to commence on the right hand, but it did not go much further.

The reflex tendinous movement of the inferior extremities became more marked; sometimes the woman would suddenly stand up on her feet, as though she was touched by a galvanic current; sometimes the whole body was jumping on the chair where she was sitting.

When pressure was made on the nape of the neck, or when she was particularly disturbed or moved, in order to help her to change her position, sudden, quick movements were produced resembling the jumping of a fish.

Some eschars on both elbows appeared, and also a large ugly-looking ulcer by *decubitus* on the sacrum. There was incontinence of urine and fæces.

Finally, the constant want of sleep exhausted the forces of the patient to such an extent as to make me believe that her last moments had arrived.

During the evolution of these phenomena, the urine was normal, and there were no *oculo-pupilar* symptoms; her temperature was ranging between 36 and 39 degrees centigrade; pulse, 100.

After several weeks the stage of retrogression commenced. The intervals of calm and rest became longer, during which she could sleep well; appetite returned; the pains gradually decreased, the movements became easier; the eschars and the ulcer soon became cicatrized, so that at the end six months the patient was able to quit the bed and move around. Later, the deformity of the left hand slowly disappeared, the fingers retrieved their movements, and four years after the first attack she had completely recovered her health.

Treatment.—I could not undertake any rational treatment in this case, on account of the woman having most emphatically refused either the use of hypodermic injections, or cold water application, or electricity. The internal remedies which I was allowed to administer, such as bromide of potassium, iodide of potassium, the salts of silver, hyoscyamine, physostigmine, strychnine, atropine, did not afford any relief whatever, consequently we may call the recovery truly spontaneous.

The history of this case and the regular order of succession by which the symptoms manifested themselves confirms the descriptions given us by Drs. Jouffroi and Charcot that we have to consider in this disease three well-marked stages: the painful, the paralytic, and the repairer, or stage of retrogression. The diagnosis of pachymeningitis could only be made *a posteriori*. The cervico-dorsal rachialgia, the tendinous reflex movements and the deformity of the hand were the principal points upon which I based this diagnosis.

ABSTRACT OF THE VIEWS OF PROF. HENOCH ON DIPHTHERIA, DELIVERED BEFORE THE MEDICAL SOCIETY OF BERLIN.

Although nearly sixty years have elapsed since Bretonneau's well-known work improved our knowledge of diphtheria, there exists yet much confusion and disagreement in regard to this disease. Physicians do not agree at all about what diphtheria actually is; one demanding one set of symptoms, while another demands others to class it as such, and this is the cause of the disappointment so often felt in using the various highly praised therapeutic agents. No harmony existing about what

is to be classed as diphtheria, it is natural, that the opinions about the efficacy of the remedies must differ considerably, and as a matter of course the good results obtained by one in using turpentine, by another in using mercury, by a third in using pilocarpine, etc., have not been able to stand a close investigation. It is but natural that physicians should be anxious to find a remedy against such a terrible disease, but, taking into consideration that it has been given up to find a specific remedy for other infectious diseases, as scarlet fever, measles, typhus, cholera, pest, recurrens, there seems to be little hope left for finding a specific remedy for diphtheria.

Henoch thinks that the overrating of therapeutical results which we meet so often, is caused by the confounding of diphtheria with certain diseases resembling it; in these, however, he does not include the so-called follicular angina, which probably nobody now-a-days will be liable to confound with diphtheria; on the other hand, it is easy to confound "angina couenneuse," described by Bretonneau, and later by Trouseau, with diphtheria, as the two diseases resemble each other very much in their symptons. We see a white, slightly gray coating of the tonsils, however, not so much presenting itself as a deep infiltration looking like pork, as we see it in pronounced cases of diphtheria, but more as a croupous coating of the very red and swollen tonsils. At the same time there is fever, more or less difficulty in swallowing and swelling of the glands. He does not deny that it is not always possible, in spite of the most careful observation, to decide whether the single (individual) case be this disease: a non-specific anginous croup, or genuine diphtheria; and it might after all be argued, that there does not exist any "angina couenneuse" at all, but that all these cases are nothing but diphtheria. He does not share this opinion, particularly because he saw all the cases terminate favorably, no matter how serious the symptoms appeared. He points out that this anginous croup may appear with violent symptoms, extend to the velum and finally end with the formation of an abscess; he has seen this occur several times, especially in adults; the local symptoms were in the beginning identical with the symptoms of diphtheria, but gradually a tonsillary abscess formed beneath the white coating, the incision of which was speedily followed by recovery and never by a diphtheric appearance of the wound. For these reasons, Henoch thinks that there exists a non-specific pharyngeal croup, no matter how much it may resemble diphtheria, for we must remember that certain things may look like each other pathologically, or even appear to be perfectly identical, and they may, nevertheless, be intrinsically widely different. An instance of this is presented by the disease which clinically is called croup, an acute stenosis brought about by the presence of psuedo-membranes in larynx and trachea. Such a case of croup may originate in very many

different ways: hot steam, corroding agents, ammonia, inspiration of cold air, or—and this is the most common origin—the diphtheric virus acting as an irritant, either propagated directly from above, or communicated through inspiration. Although the anatomical conditions may be identical, there exists only one kind of croup which has a real specific origin, viz: the diphtheric croup. Small-pox pustules look alike whether caused by the virus of variole or vaccine, or by the rubbing in of tartar emetic ointment; the anatomical process is identical, and yet the causes are widely different.

Our task is to discover how to distinguish the pharyngeal diphtheria from the non-specific pharyngeal croup; this is the difficult point, and the cause of the frequent confounding and unresonable recommendation of ineffective therapeutics. In pointing out certain distinctions, Henoch does not claim, that they will hold good in all cases, but he thinks that they deserve attention and because it renders the establishing of anginous croup, as an independent disease, plausible. It is characteristic that the disease starts with a violent fever in the same way as the ordinary follicular angine; diphtheria, on the other hand, commences in most cases, as is well-known, insiduously with a slow fever. Anginous croup appears usually on one side and remains for 24 and 36 hours only on one tonsil before the other one is attached; this successive development occurs, however, only occasionally in real diphtheria, and Henoch does not therefore attach any considerable importance to this point. It is supicious when the coating commences to pass from the tonsils to the velum; it occurs occasionally to see the lower edge of velum much coated with a grayish-white pseudo membrane, and yet simply to see a tonsillary abscess forming, running its usual course, but it is nevertheless to be considered a serious circumstance when the disease attacks the velum, and still more so when the posterior wall of pharynx is attacked. The main criterion we find, however, in the nasal mucus membrane in its participation or non-participation. Heusch claims in anginous croup never to have seen the nasal cavity involved, as the case is in diptheria. On the other hand, he attaches less importance to the albuminuria, which often enough is missing also in diphtheria. Heusch admits that there will always be some cases about the nature of which one may be in doubt; under such circumstances the prudent physician ought to isolate the patient and treat the case as if it were specific diphtheria, a proceeding which at any rate can do no harm, even if it should prove itself to be only anginous croup. Still less information can be expected from the microscope, as micrococci are always to be found in membranes and mucus accumulated in the pharynx, and we do not after all know of any fungus which is characteristic of diphtheria.

The author speaks finally about the relation between diphtheria and scarlet fever and adheres to his former opinion,

which also has been adopted by Senator and others, that we have to do with two essentially different diseases, so much so that a patient who lately has recovered from scarlet fever, complicated with necrosis of pharynx may within a short time succumb to a specific genuine diphtheria, and vice versa. Henoch has several times seen such occurrences, especially in clinical practice, where both contagia exist simultaneously and infection occurs easily. Henoch has often seen diphtheria succeed scarlet fever, and still more often has he seen scarlet fever complicated with pharyngeal necrosis appear a few days after the performance of trachiotomy for diphtherial croup, and when all membranes of the pharynx had disappeared; this probably has to do with the great disposition we see existing in wounded and operated persons to catch scarlet fever. When scarlet fever makes its appearance extraordinarily soon, inside of a few days after diphtheria, it might, however, be said that the disease from the start had not been diphtheria at all, but scarlatina, and that the necrosis of the pharynx had preceded the eruption; but this argumentation is not correct, as the anginous necrosis in scarlatina does not appear as such from the beginning, but simply as an ordinary anginous catarrh, which then usually on the third or fourth assumes the diphtherial type. Among his most striking instances of such rapid succession of the two diseases, Henoch quotes the following ones: A boy, five years of age, had for eight days been suffering from diphtheria with fever and considerable coating of the mucous membrane of the nasal cavity; on his admission there was noticed considerable pharyngeal diphtheria, croupous respiration and cough, drawing of cardia; tracheotomy was, however, avoided, the threatenings ymptoms subsiding in the course of three days, but then the temperature rose suddenly to as high as 40° (104° F.) and on the next day a diffuse scarlet fever exanthema appeared, which ran its usual course, and for some days was accompanied by a slight white coating of the tonsils.

The following case is another instance: a six year old girl had had diphtheria faucium, and the temperature had dropped to 37° (98.5° F.), when a strong chill set in, followed by collapse and rise of the temperature to 40° (104° F.), and consecutively a diffuse scarlatina eruption appeared, and on the tonsils was again seen a characteristic white coating; the child recovered, however. The complications following this disease showed in this case a peculiar mixture, which indicated the combination of both infections: the child had a double submaxillary, suppurating adenitis, consecutively pains in the joints, and finally slight albuminuria, symptons which had to be attributed to the scarlatina, while paralysis of the palate, which occured later, was supposed to be caused by the previous diphtheria.

There is no doubt that two infectious diseases may occur simultaneously, but Henoch thinks we ought to accept cases as conclusive only when we have to do with infectious diseases not resembling each other too closely.—(*Berl. Klin. Wochenschrift*, 1882, *N.* 40—*Hosp. Tidende.*)

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

PUBLISHED MONTHLY.

Communications relating to medicine are invited from every source. Matters of more than ordinary moment are occurring daily to country physicians, brief reports of which this Journal would be glad to get.

In sending such communications, address DR. RUDOLPH MATAS.

Matters pertaining to business should be addressed to DR. L. F. SALOMON.

Direct in either case to P. O. DRAWER 282, NEW ORLEANS, LA.

EDITORIAL.

STATE MEDICINE.

Evidences of haste and consequently badly arranged, or ill-advised measures so often display the evil effects of procrastination in reports of committees to organizations, that it is refreshing to read a document so vigorously drawn up and carefully arranged as that presented by the Committee on State Medicine, at the recent meeting of the Louisiana State Medical Society. Laborious research has gathered the materials and matured thought has placed them in a form reflecting great credit upon its members.

The necessity for radical changes in the department represented is made so evident that we earnestly recommend to our readers, especially those in Louisiana, its careful perusal and a determination to assist in bringing about the much needed reform.

The Constitution of the State of Louisiana, containing as it

does provisions for the interests of State Medicine has made it mandatory that laws bearing upon this important subject shall be enacted, and the united efforts of the medical profession throughout the State cannot fail to exercise a powerful influence for good upon medical legislation. The efforts of the State society in the past assisted materially in passing several laws of paramount importance to the profession, and the wise measures advocated by it now should awaken an individual interest in its members.

The report contains a number of recommendations which are offered to our legislators in the form of a petition. All of them are important, and we regret that want of space will not permit us to fully give our views upon them. The first, both as regards position and importance, is that Louisiana should have a veritable State Board of Health. The "Board of Health of the State of Louisiana" combines the duties and powers of a municipal health organization and a State Board of Health. We believe that the interests of New Orleans will be best subserved by having this condition of things changed.

A more thorough system of sanitation would be enforced should the parish of Orleans have a local health board whose sole aim and interest would be directed to the sanitary care of the city. We are convinced that the parish of Orleans should, under Act 93, organize such a board of health. Every parish throughout the State should have its health organization as well as each municipality. These local health boards should be subordinate to a State Board of Health and make quarterly reports to it relating to vital statistics, sanitary measures, etc. We believe that urban sanitation should be under a strictly municipal board of health, and that sanitary matters concerning the State should be directed by a veritable State Board of Health duly instituted and working under proper provisions.

Vital statistics should be correctly and systematically kept in every parish. Parish boards of health should properly be the custodians of these records, and the revenues derived therefrom should be devoted to sanitation within the parish. In New Orleans the income derived from the registry of births,

marriages and deaths, permits to empty vaults and to build houses should be devoted to the salaries of officers under a parish board of health and not be placed in a general fund with state quarantine revenues for the support of a State Board of Health and the payment of salaries of State officers. The State should make ample appropriation to pay its State health officers and for the maintenance of efficient quarantine. However, should the legislature see fit in its wisdom to make no change in the organization of the present board of health we hope that a change in the responsibility of appointments will be made. The present law provides that the resident physician at the Mississippi River Quarantine Station shall be appointed by the Governor. Not reflecting in the least upon the judgment of the executive we believe that the responsibility for this appointment should be fixed on the Board of Health. The Board of Health appoints the quarantine officers at other stations, why make a distinction in regard to the station on the Mississippi river?

The recommendation that physicians be protected in maintaining secret confidential communications from patients has received much attention from the physicians of New Orleans, and in the New Orleans Medical and Surgical Association this subject has had considerable attention bestowed upon it. Physicians should not be made detectives. We hope the legislature will provide against this, except in case of crime.

"The art of keeping one's self alive and well" is very essential and finds a fitting place in this report. We are sanguine that much benefit will be derived from the introduction of the study of Physiology and Hygiene into our public schools. The labors of the sanitarian would be greatly lessened had the people more knowledge in regard to the care to be bestowed upon themselves and their homes. The absolute ignorance of men and women upon matters so intimately connected with health and happiness would be ludicrous were it not so inseparably connected with the non-fulfillment of hygienic laws.

Other subjects, just as important as the preceding, have had the earnest attention of the Committee on State Medicine. We regret that space will not permit us to review them. We

commend their careful consideration to the profession throughout the State, and trust that each physician will appoint himself a committee of one to influence legislation respecting them.

DR. J. DICKSON BRUNS.

The many friends of Dr. J. Dickson Bruns will be pained to learn that this accomplised physician and genial gentleman died suddenly at his residence in this city on Sunday May 20th The cause of death was congestion of the brain.

In a future number of the JOURNAL there will be published. a biographical sketch of Dr. Bruns from the pen of a distinguished colleague.

WE regret that the space occupied by the interesting articles comprising the original department of this month's issue of the JOURNAL excludes our usual *book reviews* and other interesting matter. The books and pamphlets received will all be noticed in the July number, and we crave the indulgence of publishers until then. It is always our endeavor to thoroughly review the books received, and we trust that the publishers of those books which have been sent to us and which should have received attention this month will appreciate our inability to properly do them justice owing to want of space. As it is, the present issue of the JOURNAL exceeds its usual number of pages.

REPORTS OF CASES.

I.

CASE OF ENORMOUS ABSCESS OF THE LIVER.

Henry V., aged 30 years, a native of Switzerland, was taken ill with malarial fever in August, 1882. He also complained of a pain in the right side, and a dry persistent cough. He

remained sick for several months, constantly growing worse. He was admitted into the Charity Hospital on January 15, 1883.

The patient had evidently once been a strong man; but disease left him weak, pale, jaundiced and emaciated. His conjunctivæ had scarcely any color; his eyelids and ankles were œdematous. The heart was at once examined, but there was only a slight murmur, attributed to anæmia. The condition of the eyelids gave rise to a suspicion of renal disease; but the urine was normal, not containing even a trace of albumen. The pain in the right side was constant. The jaundice was marked, but it might have arisen as well from malaria as from any hepatic trouble. The cough was not severe; it was accompanied with the expectoration of a small amount of viscid muco-pus. On auscultation, a few mucous râles were heard, scattered over the chest. He was treated for chronic bronchitis. Upon admision, the liver was somewhat enlarged, the anterior border being not quite an inch below the edge of the ribs.

About one month after admission, the patient slept throughout a whole night exposed to a strong draft of cold air. In the morning he awoke with a severe laryngitis and bronchitis. He coughed incessantly; he could expectorate only a little frothy mucus. The coughing caused a pain in his sides and abdomen; and the pain in the right hypochondrium increased until it became almost intolerable. At each act of coughing, a severe lancinating pain would shoot through the liver. The liver also, had still further enlarged, so that its anterior border was an inch and a half or two inches below the edge of the ribs; the organ was evidently inflamed, and he was treated accordingly.

February 15. Dullness on percussion was found all over the right side, except in the infra-clavicular region; the left side was normal. A hypodermic needle was passed into the right side, in the axillary line, between the fifth and sixth ribs; a syringeful of a dark liquid was withdrawn. This liquid, under the microscope, showed a large number of pus corpuscles, some red blood corpuscles, and a large amount of

granular matter. The diagnosis of empyema was made on the strength of this exploration.

February 16. Part of the liquid was drawn from the chest with a Dieulafoy's aspirator; thirty fluid ounces were withdrawn. It had a dark reddish color, was viscid and perfectly odorless.

In the meantime, however, the anterior border of the liver continued to descend; when the aspiration was performed, the liver was as low as the umbilicus. The right side bulged out considerably, and the abdomen was distended; these conditions were supposed to arise from the presence of a large amount of liquid in the chest.

During the aspiration, the needle became clogged. As we inferred from the extent of the percussion dullness that a large amount of liquid still remained in the chest, we determined to fill the aspirator with carbolized water, reverse the action of the instrument, and by this means clear the needle of the obstruction. This was done; but not more than two drams of the water were injected. After the needle had been cleared, the aspiration was resumed, and a few more ounces of liquid were withdrawn.

The abstraction of the liquid gave great relief to the patient; the pains became less severe, the cough moderated, and the distressing sense of tightness across the chest almost entirely disappeared. For three or four days this happy state of affairs continued; but at the expiration of that time, the old symptoms returned; the cough grew worse, the pains became severer, the sense of tightness again appeared, and his right side became more bulging. During this time, however, a curious phenomenon presented itself, viz: the percussion resonance continued to extend downwards, on the front of the chest, until it reached the sixth rib; but it did not extend laterally. This extension of the resonance, coupled with aggravation of the symptoms, made the case very perplexing. As the resonance extended from above downwards, the first thought, under the circumstances, was that the hitherto compresssd lung was gradually expanding, and hence gave rise to the resonant sound; but, then, if this were the case, the symptoms would not have become worse.

On February 24 he was again aspirated; thirty-two ounces were withdrawn. This time the liquid was still viscid, but it was not quite as dark as on the first occasion, and, moreover, it possessed an overpowering, fetid odor. This last characteristic was most striking; and, to explain it, we immediately reverted to what we had done on the occasion of the first aspiration, namely, the reversal of the action of the aspirator, and the injection of the small quantity of carbolized water. When this was done, it is possible and probable, that we introduced a very small quantity of air into the cavity containing the pus; that this air had set up decomposition in the pus, and that one of the results of this decomposition had been the formation of a certain amount of gases, which would explain the extension of the resonance. The view is strengthened by the fact that the formation of the gases had been gradual, and that the resonance, likewise, extended gradually. The resonance could not have been produced directly by the air injected, because it was in too small amount; and, moreover, the change on percussion would have been immediate, and not gradual.

The patient grew weaker and weaker, and died exhausted March 14, 1883.

The autopsy was performed six hours after death. Upon opening the chest, not a drop of liquid of any sort was found in the right pleural cavity; so that our diagnosis was shown to be somewhat at fault. But on examing the liver, however, the cause of the patient's suffering was at once apparent. The liver was enormously enlarged; the uppermost part was as high as the third right intercostal space; below, the anterior border and under surface of the right lobe were on a level with the crest of the ilium. The lower half of the lung was compressed against the wall of the chest, and over a considerable extent of surface it was not more than half an inch thick. The compressed portion was non-crepitant, tough, and of a dull slate color; and it was bound down by adhesions to the adjacent parts. These adhesions prevented the escape of pus into the pleural cavity when aspiration was performed. The diaphragm was pushed up; it was very thin, especially at the

highest point, but in no place was it perforated. The left lung was but little affected, if any, by the disease of the liver; but the dorsal decubitus, to which the patient had been confined for some weeks, had given rise to hypostatic pneumonia in the posterior part; this same condition was found in the upper part of the right lung. The heart was pale; it was pushed out of place by the hepatic tumor; otherwise, it presented nothing of special interest.

The liver was affected only in the right lobe. When it was exposed, and as it lay *in situ*, percussion was practiced and a tympanitic sound elicited at the upper part of the organ. The surface giving rise to the tympanitic sound was about six inches in diameter; and this it was that caused the extension of the resonance downwards on the front of the chest. At the summit of the right lobe, there was a large patch of thickened capsule, which formed part of the wall of the abscess, and which indicated the point at which the disease was most advanced. This patch was circular, about seven inches in diameter; it consisted entirely of fibrous material, containing no hepatic tissue. It was adherent to the under surface of the diaphragm, and it required some care and force to break down the adhesion; it no doubt represented the part of the abscess that had developed farthest, and indicated the point at which it would have burst if the patient had lived long enough.

When the liver was taken from the body and cleared of all adhering tissues, it weighed fifteen and a half pounds, with the contained pus. When the right lobe was opened, it was found to contain two immense abscesses, which held altogether twelve pints of sanious pus.

A. McShane, M. D.

April 21, 1883.

Publications Received.

Therapeutic Handbook of the United States Pharmacopœia. By Robert T. Edes, A. B., M. D., etc. William Wood & Co., New York; pp. 397.

The Symptoms and Diagnosis of Malaria in Children. By. L. Emmett Holt, A. M., M. D., etc. New York; pp. 34.

A Case of Hysterectomy, with a New Clamp for the Removal of Large Uterine Tumors. By H. P. C. Wilson, M. D., etc. Baltimore; pp. 12.

Alcohol as a Food, Medicine, Poison, and Luxury. By Geo, C. Pitzer, M. D. St. Louis.

Allen's Human Anatomy, Sec. IV., Arteries, Veins and Lymphatics.

A Manual of Auscultation and Percussion. By Austin Flint, M. D., etc. Third edition. Henry C. Lea's Son & Co. Philadelphia.

Handbook of the Diagnosis and Treatment of Diseases of the Throat, Nose and Naso-Pharynx. By Carl Seiler, M. D., etc. Second edition. H. C. Lea's Son & Co., Phila. Illustrated Quarterly of Medicine and Surgery. Vol. II., No. 2, April, 1883.

Illustrated Quarterly of Medicine and Surgery. Vol. II., No 2, April, 1883.

Current Medical Literature.

A New Disease. *Friederich's Disease.*—A peculiar form of degenerative atrophy of the posterior spinal column described by Prof. Friederich, of Heidelberg, under the name of "Hereditary Ataxy." Since his recent death the disease which he first described has received his name.

The malady generally commences without any apparent exciting cause or premonitory symptoms, with a feeling of muscular debility in one or both legs. Walking becomes difficult, but does not show the peculiar features of locomotor ataxy. The gait is staggering like that of a drunken man, but the want of co-ordination is not increased by shutting the eyes. After a time the trouble spreads to the upper extremities, and the finer movements of the hands and fingers

become impossible. The affection assumes occasionally a hemiplegic form. The head is sometimes seen to oscillate like that of a person who goes to sleep in a chair; and this tremor is increased when the patient moves the head. There is also a peculiar form of nystagmus in the horizontal axis, showing that there is want of harmony in the muscles of the eyeballs. Then the speech becomes slow and drawling, and eventually quite unintelligible. In spite of this the tongue appears freely movable in all directions, can be easily protruded and held out without any appearance of tremor. Sometimes there is tremor in the tongue and glossoplegia. Towards the end there is more or less complete muscular paralysis and wasting, and occasionally cramps, pain and rigidity.

The sensibility does not suffer until the very last; whilst in locomotor ataxy, lightning pains, areas of hyperaesthesia and anaesthesia, numbness in the soles of the feet and the sphere of the ulnar nerve, are early symptoms. The sphincters do not suffer, and there is for a long time no tendency to bedsores. The tendon reflexes are absent. The Argyll-Robertson symptom (immobility of the pupil in pressure of stimulus of light and contraction only during accommodation), which is so characteristic of tabes dorsalis is absent in this complaint.

The course of the malady is exceedingly slow; and it is only quite towards the end that sensibility becomes affected and that there is a tendency to sacral bedsores and catarrh of the bladder, with pain and cramp in the muscles. Symptoms pointing to an affection of the medulla oblongata are then apt to make their appearance, viz.: acceleration of the pulse, excessive perspiration and salivation, and diabetes insipidus. Death is preceded by Cheyne-Stokes respiration. In one case the affection lasted thirty-one years, in another twenty-six; and when death took place at an earlier period it was owing to typhoid fever, to which these patients seem especially apt to succumb.

Friedrich's disease appears to be a diffuse sclerosis of different portions of the spinal cord and medulla oblongata, clinically and pathologically distinct from tabes and multiple sclerosis. Hammond's opinion that the disease begins in the medulla oblongata, and afterwards invades the cerebellum is untenable; for clinical observation points clearly to the fact that the disease begins in the lumbar enlargement of the cord, and pathological anatomy has shown the cerebellum to be healthy, even after the affection had lasted over thirty years. The complete collapse of Duchenne's original theory of locomotor ataxy being a cerebellar disease, might have prevented Hammond from once more bringing the cerebellum forward in connection with the pathology of a similar complaint.—*British Med. Journal.*

On the Use of Anæsthetics During Labor.—By Thomas D. Savill, M. D. In a Paper recently read before the East Surrey District of the South-Eastern Branch of the British Medical Association, Dr. Savill indicates what he believes to be the main precautions, the observations of which would render the use of chloroform perfectly justifiable. 1.—There are certain women who have a tendency to flood at every confinement, and others in whom there seems an already too great relaxation of fibre—weak anæmic females in their eighth or tenth confinement; and to these it would be unadvisable to give chloroform, except for necessity. Happily, it is not these women who suffer the most pain, but rather those strong, healthy primiparæ whose pelves and general build approximate to the masculine type. 2.—We should not give it when labor is complicated with severe vomiting, or with acute heart or lung-disease, unless there be imperative call for it. 3.—It should not be given to the full extent, except for operation, convulsions, or spasm of the cervix; and then it is most necessary that one person should devote his entire attention to it. 4.—The inhalation should be stopped directly we find the pulse becoming very weak, or the respiration irregular. 5.—Anything which makes us suspect a fatty or enfeebled cardiac wall should make us cautious in the use of chloroform. Here, as in cases other than those of labor, it is not the most extensive valvular disease (so long as it be attended by compensating hypertrophy), but the atrophied or degenerate wall that constitutes the source of danger. Unfortunately, the signs of these conditions are subtle and uncertain. Fatty heart may be suspected by an exceedingly feeble cardiac impulse, combined with an almost inaudible first sound; or attacks of dyspnœa, vertigo, and syncope, in the absence of anæmia, or valvular lesion; or the copious deposit of fat in other parts of the body, and the occurrence of dropsy without adequate cause. A dilated heart may be suspected by increased area of præcordial dulness, combined with epigastric and venous pulsation, and a want of correspondence between the violence of the cardiac impulse and the strength of the pulse. Pericardial adhesions also form a great source of danger. They may be suspected when the heart's apex is fixed above its normal position, and does not shift with respiration; or when there is depression instead of protrusion of intercostal spaces over the position of the apex, giving a wavy character to the cardiac impulse. 6.—In all cases, we should take extra care to prevent the occurrence of hæmorrhage after birth; by giving a full dose of ergot when the head reaches the perinæum; by ceasing the chloroform immediately it is born; and by rousing the patient from her lethargy as soon as possible.—*British Medical Journal.*

Cerebral Automatism.—In a note contributed to the *N. Y. Journal of Nervous and Mental Diseases*, MM. Charcot and Richer, present some curious and highly interesting facts concerning cerebral automatism, observed in hysteria, during the cataleptic stage of hypnotism, and produced through the suggestion of the muscular sense. After briefly explaining the principal characteristics of the cataleptic state, and the tests which established the reality of its existence in order to eliminate every suspicion of cheating or simulation on the part of the subject experimented upon, they proceed to study the influence of physiognomic expression upon the attitude. It is known that while the subject is plunged in the cataleptic state, the eyes remaining open, the face does not remain indifferent, whatever attitude the body may be caused to assume. When these attitudes are expressive, the face acts in harmony with them, and is consistent with the expression. For instance, a tragic attitude imparts a severe air to the physiognomy, causing the eye-brows to contract; on the contrary, if the open hands are carried to the mouth, as in the act of throwing a kiss, a smile immediately appears upon the lips. In these examples, the reaction of the gestures upon the physiognomy is very striking and is produced with great clearness. Now, MM. Charcot and Richer have proceeded in an inverse manner to this, and, in place of acting upon the attitude to modify the physiognomy, they have sought for the influence of the facial expression upon the attitude of the subject. For the purpose of imparting to the physiognomy a variety of expressions, they resorted to the localized faradization of the muscles of the face, according to Duchenne's process. The curious fact must be noted at this juncture, that electrization applied to the face of a hypnotized subject does not in the least modify the nervous state that exists, while, on the contrary, it is well known that a very slight breath against the face is sufficient to dissipate this state, on the instant. From the very first experiment, they noticed that the appropriate attitude or gesture succeeded the expression imparted to the physiognomy by electric excitation. In proportion as the movements of the features became marked, the entire body, spontaneously as it were, entered into action, and completed by its attitude the expression of the face; when, by reason of uncertainty of the operative proceedings, the physiognomy did not give clear indications, the attitude or gesture remained undecided. Once produced, the change imparted to the features did not become effaced, in spite of the cessation of the cause that had begotten it, and after the removal of the electrodes. The physiognomy remained immobile, in a state of catalepsy, thus transforming the subject into a motionless model, representing with striking accuracy most varied expressions, which artists, without doubt, might avail themselves of to a very great extent. In the excellent photographs that

accompany the text, we find various expressions admirably portrayed; in one exhibiting astonishment, besides the exact reproduction of this expression in the face, the whole body is thrown into a characteristic attitude. In another, after inducing the contraction of the orbicularis palpebrarium superior, and thus depicting anger through the transverse corrugation of the eye brows—the fists clenched immediately and the arms assume a fixed position of aggression and defence. Pain, disdain, sadness, horror, are all studied, and the reaction of the general attitude in response to the physiognomic expression clearly elicited. The experimenters state that the phenomena described have not been equally developed in all cases, but that in four instances of *hysteria major*, at the Salpetrière, they have been able to observe and study these hypnotic phenomena clearly.

It is stated that these automatic acts, developed by the influence of excitation conveyed to nervous centres by means of the muscular sense, are up to a certain point susceptible of correction. Like all the reflex acts in general, they are perfected by repitition, and give birth to what is commonly termed habit. The experiments in hypnotism, here in question, are a most beautiful demonstration of the automatic action of the encephalon, an action already described by psychologists and physiologists, and to which has been given the name of cerebral automatism, or unconscious cerebration.

Treatment of Warts.—Dr. Marcel Cellier in the *Journal de Médicine et de Chirurgie Pratiques*, gives the following method used by M. Vidal. It is both simple and rapid:

Transfix the wart at its base with an ordinary pin (warts are almost entirely insensible), taking care that the point of the pin does not go entirely through the wart and that the pin does not touch the surrounding skin, which you otherwise protect with a pencil or piece of paper supporting the pin. Then place the head of the pin in the flame of a candle and literally cook the wart. Should the heat be too great the candle can be withdrawn for an instant. Ten to thirty minutes are necessary for the cooking to be complete, according to the size of the wart and the courage of the patient. The wart will be seen to turn white and crevised, and then to be surrounded at its base by a red circle. The wart will come away on the point of the pin, if not entire, at least a larger portion of it, and whatever remains will fall off of itself. A circular, superficial wound remains which cicatrises in two days.

If the thing is done slowly not a drop of blood should come from the little wound.

A curious fact, which has been often noticed on the hand, is that it suffices to remove one wart to have all the others disappear, although there may be fifteen or twenty.

Imperforate Hymen Persistent in Labor.—Mr. H. Grey Edwards, B. A., M. B., B.Ch., of Bangor, writes:

At 11 P. M., April 25th, 1883, I was called to see S. O., primipara, aged 32, said to have been in labor since Monday morning, the 23rd ultimo. I found the patient suffering from severe "pains." On digital examination, I was somewhat surprised to find that the orifice of the vagina was completely closed by a tough membrane. Anteriorly, it was comparatively thin, and attached to the edge of the vaginal orifice, whence it sloped gradually backwards until, at the posterior wall, it was attached an inch and a half from the orifice. Here it was very thick, and gave the same sensation to the finger as the walls of the vagina itself. The fœtal head could be easily felt through the tissue, which was perfectly lax, resisting all efforts at rupture with my finger.

Having decided to give the uterus time to do its best, I left, calling again at 4 A. M.: but, though the pains had been strong and frequent, things were much in the same condition. By sawing with my nail at the thinnest part, I eventually got the end of my finger in, and tore the hymen by drawing the finger backwards, until about halfway across, but I could not manage it further. I then waited an hour, in the hope that the remaining half would not be sufficient obstruction to delivery; but, "pains" becoming short and slight, I put on a forceps, and delivered without difficulty. The patient is going on satisfactorily.

I have reported this case under the belief that such a tough condition of hymen is most unusual.

It is medico-legally interesting, that one single act of copulation, in spite of the seeming difficulties of the case, sufficed for impregnation.—*British Medical Journal.*

The Use of Naphtol for Local Sweating.—The *Repertoire de Pharmacie* gives the following formula for hyperidrosis, or excessive sweating of the hands, feet and axilla:

Naphtol	5 parts.
Glycerine	10 "
Alcohol	100 "

To be used as a lotion twice a day, afterwards dusting the parts with pulverized starch or with a powder made as follows:

Pulverized Naphtol	2 parts.
Starch	100 "

For perspiration of the feet, a pledget of cotton impregnated with the above powder is placed between the toes.—*Journal de Medecine et de Chirurgie Pratique.*

Meteorological Summary—April.
Station—New Orleans.

Date	Daily Mean Barometer.	Daily Mean Temp'ture.	Daily Mean Humidity.	Prevailing Direction of Wind.	Daily Rain-fall.	General Items.
1	29.865	74.0	76.0	.....	.....	Mean Barometer,
2	30.176	62.6	63.7	.....	.03	Highest Barometer, 30.361-16″
3	30.171	61.6	70.7	.....	.....	Lowest Barometer, 29.508-22″
4	30.071	67.2	89.0	.....	.64	Monthly Range of Barometer, .858.
5	39.947	75.4	85.0	.....	.04	Mean Temperature, ——.
6	39.865	77.4	77.3	.. ---	*	Highest Temperature, 84 0-24″
7	39.983	70.2	87.0	.....	8.06	Lowest Temperature, 51.0-3″
8	30.064	64.7	91.0	.....	1.71	Greatest daily range of Temperature, 18.9-17″
9	29.905	70.3	84.7	.....	1.68	
10	29.946	70.6	78.0	.....	. ---	Least daily range of Temperature, 4.0-8″
11	29.851	74.7	88.0	.....	*	
12	29.859	75.8	84.7	.....	.....	Mean of Maximum Temperature, 77.4.
13	29.940	77.0	80.7	.....	.....	Mean of Minimum Temperature 64.7.
14	30.044	76.3	79.0	.....	.....	Mean daily range of Temperature, 12.7.
15	30.169	71.0	65.7	.....	.45	Prevailing Direction of Wind, N.
16	30.282	67.3	44.3	.....	.....	Total movement of wind, 5742 miles.
17	30.159	69.7	51.7	.....	.....	Highest Velocity of Wind and Direction, 26 miles, SE.
18	30.009	70.9	63.0	.....	.....	
19	29.924	71.7	76.3	.....	.26	Number of Foggy Days, 0.
20	29.910	73.0	77.3	.....	.....	Number of Clear Days, 8.
21	29.743	74.8	79.3	.....	.....	Number of fair days, 11.
22	29.549	77.1	80.8	.....	*	No. of cloudy days on which no rain fell, 2
23	29.695	76.3	56.5	.....	.....	Total No. of days on which rain fell, 15
24	29.987	75.1	45.3	.....	.....	
25	30.181	62.3	42.3	.....	....	
26	30 124	67.8	60.7	.....	.....	
27	30.029	69.0	82.7	.....	.12	
28	29.883	71.5	81.3	.....	.46	
29	29.858	73.0	69.3	.....	.75	
30	29.896	71.6	79.7	.....	*	
31	.....	....	....	.....	....	
Sums.	.....	....	....	.....	Tot.	
Means	29.966	71.4	72.9	North	14.20	

COMPARATIVE TEMPERATURE.

1873.....	67.0	1878.....	67.4
1874.....	65.6	1879.....	67.9
1875.....	65.3	1880.....	71.2
1876.....	67.1	1881.....	67.2
1877.....	68.6	1882.....	72.5

COMPARATIVE PRECIPITATIONS.
(Inches and Hundredths.)

1873.....	47.4	1878.....	1.54
1874.....	13.62	1879.....	9.17
1875.....	10.8	1880.....	6.88
1876.....	6.41	1881.....	3.92
1877.....	4.19	1882.....	5.83

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Mortality in New Orleans from April 28th, 1883, to May 19th, 1883, inclusive.

Week Ending.	Yellow Fever.	Malarial Fevers.	Consumption.	Small-Pox.	Pneumonia.	Total Mortality.
April 28	0	7	15	45	8	155
May 5	0	7	11	34	6	119
May 12	0	5	18	40	5	144
May 19	0	7	11	52	5	167
Total	0	26	55	171	24	585

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PAGE

arpe & Dohme—*Manufacturing Chemists*, 2d Page Cover.
cIntosh Galvanic Belt & Battery Co., 2d Page Cover.
ctopeptine, 3d Page Cover.....
emphis Hospital Medical College, Memphis, Tenn i
ed & Carnrick—*Maltine Preparations*..... ii
eodore Metcalf & Co—*Mellin's Food*..... iii
edk. DeBary & Co.—*Apollinaris Water—Hunyadi Janos Mineral Water*..... iv
ef Peptonoids..... 1
homas Leeming & Co.—*Nestle's Milk Food*..... 2
. A. Mellier—*Elliot's Patent Saddle Bag*..... 3
idder & Laird—*Hydroleine*..... 4
idder & Laird—*Kidder's Saccharated Pepsine*..... 5
F. Houghton & Co—*Ungentum Petrolei*..... 6
. R. Finlay & Co—*Druggists*..... 7
remaults & Co.'s Quinquina Ferraginous Wine... 8
eLeras—Advantages of the Soluble Phosphate of Lime..... 9

PAGE.

Lambert & Co.—Listerine..... 10
A McDermott—*Dr. Bly's Patent Artificial Limbs*. 11
I. L. Lyons—*Druggist*.....12, 13
James I Fellows—*Fellows' Hypophosphites*..... 14
Bellevue Hospital Medical College, New York.... 15
Sharpe & Dohme—*Manufacturing Chemists*..... 16
Codman & Shurtleff—*Atomizing Apparatus*..... 17
The Jefferson Medical College of Philadelphia..... 18
J. C. Richardson—*Celerina*..... 19
New Orleans Druggists and Apothecaries.....20, 21
H. Planten & Son—*Planten's Capsules*..... 22
Dr. McIntosh's—*Natural Uterine Supporter*..... 23
McIntosh *Galvanic and Faradic Battery*..... 24
E Scheffer—*Pepsin*..... 25
L. Graham & Son—*Book and Job Printers*..... 25
College of Physicians and Surgeons..... 26
University of the City of New York..... 27
John Wyeth & Bro.—*Compressed Soluble Hypodermic Tablets*..... 28

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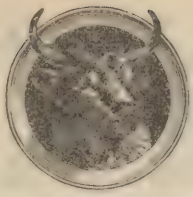
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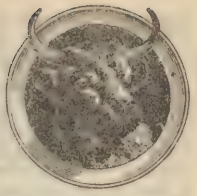
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Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th. 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would in many cases, produce lasting injury and fatal results.

The use of BEEF PEPTONOIDS is indicated as follows:

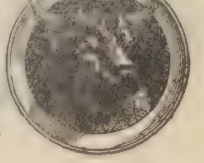
Convalescence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulant, Per Rectum in all cases where the stomach cannot digest the food, and in debility resulting from any cause. Also, a valuable adjunct in all voyages and camp life.

We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.



Thanking the Profession for generous support in the past, we beg to remain,

Very Respectfully,



REED & CARNRICK,

182 FULTON ST. NEW YORK.

NESTLE'S MILK FOOD.

ITS PREPARATION AND VALUE FOR INFANTS.

Preparation.—For an infant under three months, mix one tablespoonful of the Food with ten of hot or cold water. Hold over the gas, lamp, or stove, with constant stirring, until it has boiled two or three minutes. Cool to about blood heat, and give in feeding bottle. For a child three to ten months old, mix in proportion of eight of water to one of Food. For a pap, in proportion of five of water to one of Food.

Value.—Containing only Milk, Wheaten Bread Crust and Sugar, this Food supplies all the elements necessary for complete alimentation, in the most easily assimilable form; the *Milk* furnishing Casein, Albumen, Hydrates of Carbon and Sugar of Milk, while the *Wheaten Bread Crust* supplies Nitrogen, and is especially rich in *Saline Matter*, particularly in potash salts, mainly in the form of phosphates, and Carbon is obtained from *Cane Sugar*. It makes pure blood, firm flesh, hard muscle, and tough bone. It is a sure preventive of Summer Complaint, and by its use the bowels can be kept in just the state desired. It is retained on the stomach, often, when everything else is rejected. The simplicity of its preparation and the uniformity obtainable are two points the value of which cannot be overestimated.

Particular Attention.—We do not claim that this Food will agree with *all* children. We do not think that any artificial food will ever be made which will do this, as nature sometimes fails, a mother's milk not agreeing with her own child. We only claim, what has been proved by its use for 15 years past, that it will agree with a *larger proportion* of children than any other artificial food.

A pamphlet, by Prof. H. Lebert, of Berlin, giving fuller particulars of the Food, sent to any address on application to

THOMAS LEEMING & CO., Sole Agents,

18 College Place, New York City.

For a perfectly pure *CONDENSED MILK*, free from starch of any kind, try Nestle's.



DR. McINTOSH'S

Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

THE BEST
SADDLE BAG
IN THE MARKET.

IT HAS NO DRAWERS.
IT IS MADE OF ONE PIECE.



NICKEL PLATED FINISHINGS.
NO SEAMS OR STITCHES.

READ THE FOLLOWING ENDORSEMENT.

"I write to say that I am more than pleased with the Elliott' Patent Medica Saddle Bags, and I have used them sufficiently long to give me a very high appreciation of their compactness, lightness and convenience of arrangement. These advantages they present in an eminent degree over the styles generally in use. Physicians in country and town practice will find them useful and invaluable. I remain, very respectfully,

Your obedient servant,

A. M. FOUNTLEROY, M. D.,
Ex-President Medical Society of Virginia.

More Elliott's Patent are Sold than all others Combined.

ADOPTED BY THE U. S. GOVERNMENT.

Large Size, 30 Vials, Black or Light Leather, with 100 Labels - - - $12.00
Small " 24 " " " " - - - 11.00

For Sale by all Druggists and Dealers in the United States.

Send for Descriptive Circular. Avoid Cheap Imitations. See that the name "Elliott is on each Bag.

A. A. MELLIER,

SOLE PROPRIETOR,

IMPORTER AND WHOLESALE DRUGGIST,
ST. LOUIS.

For Consumption and Wasting Diseases.

HYDROLEINE

Has been proved of the highest value in CONSUMPTION and all WASTING DISEASES, invariably producing INCREASE in FLESH and WEIGHT.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonsful, equal to 120 drops contains:

Pure Oil	80 m. (drops.)	Soda	1-3 Grains.
Distilled Water	35 "	Boric Acid	1-4 "
Soluble Pancreatin	5 Grains.	Hyocholic Acid	1-20 "

DOSE.—Two teaspoonful alone, or mixed with twice the quantity of soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY," by H. C. BARTLETT, Ph. D., F. C. S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M. D.

In these Treatises the Chemistry and Physiology of the Digestion of the Fats and Oils is made clear, not only by the description of a large number of experiments scientifically conducted, but by cases in which the deductions are most fully borne out by the results.

☞ Copies of these valuable works will be sent free on application.

HYDRATED OIL

HYDROLEINE

WATER AND OIL.

HYDROLEINE is readily tolerated by the most delicate stomachs, even when the pure Oil or the most carefully prepared Emulsions are rejected. The Oil is so treated with pancreatin, soda, boric and hyocholic acids, that the process of digestion is partially effected before the organs of the patient are called upon to act upon it. Consequently it is readily assimilated. It will nourish and produce increase in weight in those cases where oils or fats, not so treated, are difficult or impossible to digest. In CONSUMPTION and other WASTING DISEASES, the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE, which may be discontinued when the usual average weight has been permanently regained.

The permanence and perfection of the emulsion, and the extreme solubility of the HYDRATED OIL, solely prepared and sold by us under the name of HYDROLEINE, is shown by its retaining its cream like condition as long as the purest Cod Liver Oil will retain its sweetness. Unlike the preparations mentioned, or simple Cod-Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

To brain workers of all classes, Hydrated Oil is invaluable, supplying as it does, the true brain food.

Economical in use—certain in result. Tonic—Digestive and Highly Nutritive.

NEW PRINCIPLE FOR THE ASSIMILATION OF FAT

KIDDER & LAIRD, Agents for the United States.

Depot, 83 John St., NEW YORK.

Price at Retail, $1 per Bottle.

BE PARTICULAR TO GET THE GENUINE

KIDDER'S SACCHARATED PEPSINE.

TAKE NO OTHER.

OUR PEPSINE IS NOT SOLD IN BULK. The only way you can get the genuine is in original packages, as follows:

ONLY STYLES OF KIDDER'S SACCHERATED PEPSINE,

One ounce, four ounce, and eight ounce oblong white flint-glass bottles, with our name (Kidder & Laird) blown in the bottles, and sixteen ounce round (plain) bottles, all having on them our metallic caps and lables. THESE ONLY STYLES, THE GENUINE, ARE SOLD AT 35 CENTS PER OUNCE, AND $4.50 PER POUND.

PROF. DOREMUS' TEST.

THE COLLEGE OF THE CITY OF NEW YORK, cor. Lexington Ave. and 23d Street.

This is to certify that I received from my son, Thomas C. Doremus, Jr., a sample of Pepsine obtained by him at Messrs. KIDDER & LAIRD'S, 83 John Street, New York, from a barrel containing 200 lbs. of the same. That I have made ten determinations of the solvent power of this Pepsine, with the following result: Ten grains of the Pepsine placed in an ounce of distilled water, with ten drops of hydrochloric acid, and kept at the temperature of the human body for six hours, with frequent agitation, dissolved 167.1 grains of coagulated albumen out of 200 grains.

Respectfully submitted.

R. OGDEN DOREMUS, M.D., LL.D.,
Prof. Chemistry and Physics, College City of New York,
and Prof. Chemistry and Toxicology, Bellevue Hosp. Med. Col.

TESTIMONIALS.

Kidder & Laird. LAKEPORT, CAL., Aug. 23d, 1878.

Gentlemen: I have used the Kidder's Saccharated Pepsine in several cases of Catarrh of the Stomach, where all other Pepsines have failed. The Lactopeptine I cannot give to children at all, and find your Pepsine acts nicely. Yours, etc., P. H. THORNTON, M. D.

INDIANAPOLIS, IND., July 12th, 1878.

Kidder & Laird.

Gentlemen: Have given Kidder's Saccharated Pepsine in a number of cases of dyspepsia; also given it to the physicians in this locality, who were well pleased with the superior quality of it. Yours, etc.,

S. J. HILLMAN, M. D.

SOUTH BEND, IND., Oct. 22d, 1878.

Kidder & Laird.

Gentlemen: I have used Kidder's Saccharated Pepsine in some very aggravated cases of indigestion, and have found it equal to any Pepsine that I have ever used.

Yours respectfully, O. P. BARBOUR, M. D.

Kidder & Laird. ANNAPOLIS, June 20th, 1878.

Gentlemen: Since the reception of your sample of Kidder's Saccharated Pepsine we have used no other. We consider it a first-class preparation. We have never heard anything to the contrary. We shall continue to dispense it unless well-founded objections are made, which we do not fear. We purchase from Messrs. Thomsen & Muth. Yours, etc,

J. F. PERKINS & BRO.

181 LEXINGTON ST., BALTIMORE, MD.

Kidder & Laird.

Gentlemen: Have used Kidder's Saccharated for the past year with entire satisfaction. I use no other, except specially preseribed. I obtain my supply from Messrs. W. H. Brown & Bro., or Messrs. Thomsen & Muth, Baltimore. Yours. etc.,

H. C. MOORE, M. D.

MALDEN, MASS., July 15th, 1878.

Kidder & Laird.

Gentlemen: We meant to have written to you before, to the effect that Kidder's Saccharated Pepsine was a complete success with some of the dyspeptics of this place; and it is highly recommended by the physicians, and they are prescribing it regularly to thetr patients.

Yours respectfully, M. E. JOSSELYN.

NO. BROOKFIELD, MASS., May 18th, 1877.

Kidder & Laird.

Gentlemen: I have tested the sample (chemically) of Pepsine you sent me, and find it to be superior to that I have been in the habit of prescribing (Hawley's).

Yours truly, L. A. NAN WAGNER, M. D.

ALLENVILLE, MO., May 28th, 1878.

Kidder & Laird.

Gentlemen: As you will remember sending me four ounces of your Saccharated Pepsine, please permit me to say, in justice to yourselves, that I believe it to be the most efficacious of all the preparations of Pepsine now in use. I have used it in three well-defined cases of dyspepsia with success when the others had failed except to give slight relief. I shall use it in all cases of indigestion hereafter. Yours respectfully,

A. P. REED, M. D.

PORTSMOUTH, N. H., Aug. 19th, 1878.

Kidder & Laird.

Gentlemen: I have used the Kidder's Saccharated Pepsine, and have taken considerable trouble to test it and watch its action. I think it superior to any preparation I have ever used containing Pepsine—*not even excepting Lactopeptine.* Yours, etc.,

J. C. WHITTIER, M. D.

Messrs. Kidder & Laird. AMELIA, OHIO.

Gentlemen: The Kidder's Saccharated Pepsine sent to me was of an excellent quality, and gave general satisfaction, after which I ordered more of it, and have used nearly all of the second installment. Your Pepsine is not only *cheap* but it is one of the very *best* articles of Pepsine in the market. Very respectfully,

M. M. INGALLS, M. D.
Ex.-Pres. Nat'l E. M. Assoc.

CHICAGO, OHIO, June 26th, 1878.

Kidder & Laird.

Gentlemen: Kidder's Saccharated Pepsine answered a better purpose than any other preparation of the kind that I have ever used in my practice of over ten years. I intend to continue to use it.

Yours, etc., D. H. YOUNG, JR., M. D.

Kidder & Laird. IRONTON, OHIO, June 21st, 1878.

Gentlemen: Being a constant user of Pepsines, I took the sample you sent me of Kidder's Saccharated Pepsine, and I found it equal to any, and superior to a great many, of the preparations of Pepsine. I have tried most of the preparations in market. Yours, etc.,

O. ELLISON, M. D.

PHILA., PA., 2280 FRANKFORD AVE.

Kidder & Laird.

Gentlemen: Since the receipt and trial of your sample or Kidder's Saccharated Pepsine I have used four pounds of it, and come to the conclusion that it fully answers all the purposes that can be reasonably expected from the use of "Pepsine" equally as well as the highest priced articles, which I only keep on hand in case they are prescribed by other physicians. In my own practice I use your Pepsine exclusively.

Yours respectfully, FRED. PLEIBEL, M. D.

Kidder & Laird. NORFOLK, VA., Sept. 23d, 1878.

Gentlemen: The reports from the physicians who have had samples of your Pepsine is found in their continued use of it in their prescriptions on my file, and who have told me that it fulfills all that could be desired of a pure and unadulterated Pepsine. In my own practice I have carefully noted its effects; have placed it in comparison with Boudault's, Scheffer's and Hawley's; in each case, whether fancied or real, the disposition to nausea has been less out of your preparation than with any other. I shall continue to keep that, and that only, on my prescription counter.

Yours truly, J. W. THOMAS, JR.

CHATHAM, CANADA WEST, Nov. 2d, 1878.

Kidder & Laird.

Gentlemen: I find your Pepsine acts well in all the cases in which I have tried it. I have been in the habit of using almost all the different makes of Pepsine, French, English and American, as well as Lactopeptine and Inglavin, and find your Pepsine equal to any of them. Yours truly,

J. C. BRIGHT, M. D., M. C. P. & P. O.

We have over 5,000 letters from Physicians and Druggists endorsing and recommending KIDDER'S SACCHARATED PEPSINE. The quality is the best, and the price lowest in market

Samples and Circulars sent to Druggist or Physicians on application to

KIDDER & LAIRD, 83 JOHN STREET, N. Y

For Sale at all Wholesale and Retail Druggists.

REGISTERED COSMOLINE TRADE MARK.

Unguentum Petrolei

Prepared by E F Houghton & Co. Philadelphia, U. S. A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ $C_{16}H_{34}$ and $C_{16}H_{32}$. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C_7H_{16} and C_7H_{14} respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

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218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia.

G. R. FINLAY & CO.,

IMPORTERS

AND

WHOLESALE DRUGGISTS,

No. 35 Magazine St. and 12 Bank Place,

NEW ORLEANS, LA.

We keep constantly on hand a large and complete stock of

PURE **DRUGS** FRESH

bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) of

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES.

and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obvitae such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

Depot à Paris—8 rue Vivienne.

Pepsic Peptones, with the Beef Meat

OF CHAPOTEAUT, PHARMACIST, OF THE FACULTY OF PARIS.

These Peptones are very pure and prepared with great care, with the pure beef meat well digested and rendered assimilable by the gastric pepsin; before leaving our laboratories they are brought to their extreme state of concentration, that is, at 33 p. 100; they are rich in alimentary principles, and cause a rapid increase in nutrition in the whole organism. They are quite different from the other Peptones sold in the market, which are prepared with the pancreas of hog, and have a very disgusting smell and disagreeable taste, susceptible of fermentation and putrefaction, and containing some foreign matters and very little peptonized meat from 8 to 13 p. 100.

The following preparations were found to be the best to facilitate the use of pepsic peptones, and they may answer to all therapeutical indications:

Chapoteaut's Preserve.

This preserve is neutral and aromatic; it keeps well; it acquires the consistency of jelly at the temperature of 15° C., and melts at 35°. A tea spoonful represents double of its weight of beef meat. It may be taken either pure, or mixed with *bouillon*, with sweetened sugar, cakes, grapes. It may also be administered as an enema.

Chapoteaut's Wine.

This wine contains for each wine glass full 10 grammes of beef meat. It has a very agreeable taste, is an excellent nourishment, and well liked by the patients. The dose is of one or two wine glass fulls before meals.

PRINCIPAL INDICATIONS—Anæmia, Dyspepsia, Cachexia, General Debility, Atony of the Stomach and Bowels, Convalescences, Alimentation of wet nurses, of children of old men, and of diabetic and phthisical people.

Syrop of Iodined Horse Radish,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 table spoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

Advantages of the Soluble Phosphateof Lime.

DELERAS, DRUGGIST and DOCTOR in SCIENCES.

1st. Solution and syrup containing 20 centigrams of the salt of iron in each tablespoon ful.

2d. They are colorless preparations without taste or smell of iron; they have no action on the teeth.

3d. They do not cause constipation, on account of a small quantity of sulphate of soda, which is produced during the preparation of this salt, without causing any influence on the savour of the medicament.

4th. They combine iron with phosphoric acid, the two principal elements of the bones and blood—a circumstance, which is of a great influence on digestion and respiration.

5th. The salt is not precipitated by the gastric juice, consequently it is immediately digested and assimulated and always well borne by the most delicate persons, whose stomachs cannot tolerate other ferruginous preparations.

Depot No. 8 Vivenne street, Paris.

For sale in all Drug Stores.

DUSART'S SYRUP

OF

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physicological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls.

London: WILCOX, 336 Oxford Street.

Paris: GRIMAULT & CIE., Chemists, 8 Rue Vivienne.

MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrhs

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE—From 10 to 12 Capsules per day, decreasing progressively in proportion with the diminishing discharg

Depot, Paris, a Midy's Drugstore, No. 113 Faubourg, St. Honore Street.

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TO PHYSICIANS.

LISTERINE

FORMULA.—LISTERINE is the *essential Antiseptic* constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis in combination. Each *fluid drachm* also contains *two* grains of *refined* and *purified* Benzo-boracic Acid.

DOSE.—One teaspoonful *three* or *more* times a day (as indicated). As a local application to ulcers, wounds and abscesses, or as a gargle, mouth-wash, inhalant or injection, it can be used *ad libitum*, diluted as desired.

LISTERINE is a **Powerful, Safe, and Pleasant** Antiseptic. The beneficial results following its use in Phthisis, Diphtheria, Catarrh, Dysentery, Scarlatina, Erysipelas, Small pox, Typhoid and Malarial Fevers, etc., proves it to be A RESTORATIVE ANTISEPTIC *of the very highest order of merit.* It is the most efficient agent to disinfect the hands after surgical or gynecological operations, and is **the best** injection in Leucorrhœa, Gonorrhœa, etc., used in the proportion of two or three parts water and one part LISTERINE.

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MONTROSE A. PALLEN, M.D., LL.D.,
Professor of Gynecology, University of City of New York, and Surgeon to the Maternity Hospital, etc.

HENRY O. MARCY, M.D.,
Boston.

W. W. DAWSON, M.D.,
Professor of Surgery, Medical College of Ohio, etc., etc.

H. P. C. WILSON, M.D.,
Ex-President Medical and Chirurgical Faculty, Maryland, and Baltimore Academy of Medicine; Vice-President American Gynecological Society.

JOSEPH TABER JOHNSON, A.M., M.D.,
Professor of Obstetrics and Diseases of Women and Infants, Medical Department University of Georgetown, D.C.

EDWARD W. JENKS, M.D., LL.D.,
Professor of Diseases of Women, and of Clinical Gynecology, Chicago Medical College.

R. A. KINLOCH, M.D.,
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PERCY NORCOP, M.D., F.R.C.S.,
Formerly Surgical Dresser to Professor Lister.

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A. F. ERICH, M.D.,
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F. J. LUTZ, A.M., M.D.,
Surgeon to Alexian Brothers Hospital; Physician to Misericordia Asylum for the Insane and Nervous.

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IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

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CITY OF NEW YORK.

SESSION OF 1882-3.

The COLLEGIATE YEAR in this Institution embraces the Regular Winter Session and a Spring Session. The REGULAR SESSION will begin on Wednesday, September 21, 1882, and end about the middle of March, 1883. During this Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. The SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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T. HERRING BURCHARD, M. D.,
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Matriculation Fee	5 00
Dissection Fee (including material for dissection)	10 00
Graduation Fee	30 00

No Fee for Lectures are required of Graduates of three years' standing, or of third-course Students who have attended their second course at the Bellevue Hospital Medical College.

FEES FOR THE SPRING SESSION.

Matriculation (Tickets valid for the following Winter)	$ 5 00
Recitations, Clinics and Lectures,	40 00
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One Crust, new method, in air-tight Glass Capsule, prepared for immediate use	2 00

Also Humanized Virus, from HEALTHY CHILDREN, procured for us by physicians of undoubted reliability.

One Crust from Unruptured Vesicles (one remove from heifer if preferred) $2 00

We will give a fresh supply, in case of failure reported within twenty days for Points, thirty days for Human, and ninety days for Kine Crusts.

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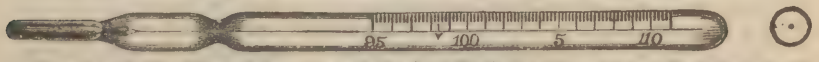
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THE

JEFFERSON MEDICAL COLLEGE

OF PHILADELPHIA.

THE Fifty-eighth Session of the Jefferson Medical College will begin on Monday, October 2d, 1882, and will continue until the end of March, 1883. Preliminary Lectures will be held from Monday, 11th of September.

S. D. GROSS, M. D., LL. D., D. C. L. Oxon., LL. D. Cantab. (Emeritus).
Institutes and Practice of Surgery.

ELLERSLIE WALLACE, M. D.,
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J. M. DA COSTA, M. D.,
Practice of Medicine.

WM. H. PANCOAST, M. D.,
eneral, Descriptive, and Surgical Anatomy.

ROBERT E. ROGERS, M. D.,
Medical Chemistry and Toxicology.

ROBERTS BARTHOLOW, M. D, LL. D.,
Materia Medica and General Theraputics.

HENRY C. CHAPMAN, M. D.,
Institutes of Medicine and Medical Jurisprudence.

SAMUEL W. GROSS, M. D.,
Principles of Surgery and Clinical Surgery.

JOHN H. BRINTON, M. D.,
Practice of Surgery and Clinical Surgery.

WILLIAM THOMSON, M. D..
Professor of Ophthalmology.

The recent engagement of the College hos enabled the Faculty to perfect the system of *Practical Laboratory Instructions*, in all the Departments. Rooms are assigned in which each Professor, with his Demonstrators, instructs the Class, in Sections, in direct observation and hand-work in the Chemical, Pharmaceutical, Physiological, and Patholoical Laboratories. Operative and Minor Surgery, and investigation of Gynæcological and Obstetric conditions on the *Cadaver*, are taught, as also Diagnosis of Disease on the living subject. The experience of the past Session has abundantly proven the great value of this Practacal Teaching,

This course of instruction is *free of charge, but obligatory upon* candidates for the Degree, except those who are Graduates of other Colleges of ten years' standing.

A SPRING COURSE of Lectures is to be given, beginning early in April, and ending early in June. There is no additional charge for this Course to matriculates of the College, except a registration fee of five dollars; non-matriculates pay forty dollars, *thirty-five of which, however, are credited on the amount of fees paid for the ensuing Winter Course.*

CLINICAL INSTRUCTION is given *daily* at the HOSPITAL OF THE JEFFERSON MEDICAL COLLEGE throughout the year by Members of the Faculty, and by the Hospital Staff.

FEES.

Matriculation Fee (paid once)	$5 00	Practical Anatomy	$10 00
Tickets for each Branch (7) $20	140 00	Graduating Fee	30 00

Fees for a full course of Lectures to those who have attended two full courses at other (recognized) Colleges—the matriculation fee, and $70 00
To Graduates of less ten years of such Colleges—the matriculation fee, and 50 00
To Graduates of ten years, and upwards, of such Colleges—the matriculation fee only.

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A Most Valuable Remedy in all Diseases of the Mucous Surfaces requiring an Astringent.

☞TO PHYSICIANS.—I will take pleasure in forwarding you free a sample bottle sufficient to test fully its merits. A trial only is sufficient to establish its medicinal value.

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N. B.—The doses prescribed are for adults, for children the dose must be diminished according to their age.

As an Internal Remedy in Diarrhœa, Dysentery, Night-Sweats, Hemorrhage, or Profuse Expectoration. Mix one part of the extract with five of warm water; let it cool and take a teaspoonsful of the solution every three hours or oftener as the case may require.

For Leucorrhœa and other Vaginal Diseases, dissolve a tablespoonful or two in a pint of warm water and inject twice a day. In obstinate cases a stronger solution should be used.

For Protruding or Itching Piles mix one-fourth of glycerine and apply as often as convenient; Fissure of the Anus, Sores, Ulcers, Burns, or Scalds, the extract should be applied in its full strength.

For Catarrh, dissolve a teaspoonful or two of the extract and a teaspoonful of salt in a pint of warm water and inject into the nostrils with a nasal douche twice a day.

For Sore Throat, dissolve a tablespoonful of the extract in half pint warm water, let it cool, and apply as a gargle repeatedly during the day.

For Gonorrhœa or Gleet, mix one part of the extract with three of water, inject two or three times a day.

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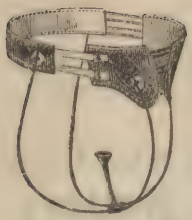
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FORTY-SECOND SESSION, 1882-83.

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ALFRED C. POST, M. D., LL.D., Professor Emeritus of Clinical Surgery; President of the Faculty.

CHARLES INSLEE PARDEE, M. D., Dean of the Faculty; Professor of Otology; Surgeon to the Manhattan Eye and Ear Hospital.

JOHN C. DRAPER, M. D., LL. D., Professor of Chemistry.

ALFRED L. LOOMIS, M. D., Professor of Pathology and Practice of Medicine; Visiting Physician to Bellevue Hospital.

WM. DARLING, M. D., LL.D., F.R.C.S. Professor of General and Descriptive Anatomy.

WILLIAM H. THOMSON, M. D., Professor of Materia Medica, Therapeutics and Diseases of the Nervous System; Visiting Physician to Bellevue Hospital

J. W. S. ARNOLD, M. D., Professor of Physiology and Histology.

J. WILLISTON WRIGHT, M. D., Professor of Surgery; Visiting Surgeon to Bellevue Hospital.

WM. M. POLK, M. D., Professor of Obstetrics and the Diseases of Women and Children; Gynæcologist to Bellevue Hospital.

LEWIS A. STIMSON, M. D., Professor of Surgical Pathology; Surgeon to Bellevue Hospital; Curator to Bellevue Hospital.

FANEUIL D. WEISSE, M. D, Professor of Practical and Surgical Anatomy; Surgeon to Workhouse Hospital, B. I.

STEPHEN SMITH, M. D., Professor of Clinical Surgery; Surgeon to Bellevue Hospital.

A. E. MACDONALD, LL.B., M. D., Professor of Medical Jurisprudence and Diseases of the Mind; Medical Superintendent of the New York City Asylum for the Insane.

R. A. WITTHAUS, M. D., Professor of Physiological Chemistry.

HERMAN KNAPP, M. D., Professor of Ophthalmology: Surgeon to the Ophthalmic Institute.

AMBROSE L. RANNEY, M. D., Adjunct Professor of Anatomy.

JOSEPH E. WINTERS, M. D., Demonstrator of Anatomy.

THE PRELIMINARY SESSION will begin on Wednesday, September 20, 1882, and end October 4, 1882. It will be conducted on the same plan as the Regular Winter Session.

THE REGULAR WINTER SESSION will begin October 4, 1882, and end about the middle of March, 1883. The Plan of Instruction consists of Didactic and Clinical Lectures, recitations and Laboratory work in all subjects in which it is practicable To put the laboratories on a proper footing a new building has been erected at an expense of thirty thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operatic Surgery and Gynæcology.

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Each of the seven professors of the Regular Faculty will conduct a recitation on his subject one evening each week. Students are thus enabled to make up for lost lectures and prepare themselves properly for their final examinatios without additional expense.

THE SPRING SESSION will begin about the middle of March and end the last week in May. The daily Clinics and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty.

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SEVENTY-SIXTH SESSION, 1882-83.

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WILLARD PARKER, M. D., Emeritus Professor of the Principles and Practice of Surgery.
JOHN C. DALTON, M. D., Professor of Physiology and Hygiene.
THOMAS M. MARKOE, M. D., Professor of Surgery.
T. GAILARD THOMAS, M. D., Professor of Clinical Gynæcology.
JOHN T. METCALF, M. D., Emeritus Professor of Clinical Medicine.
HENRY B. SANDS, M. D., Professor of the Practice of Surgery.
JAMES W. McLANE, M. D., Professor of Obstetrics, of Gynæcology, and of the Diseases of Children
THOMAS T. SABINE, M. D., Professor of Anatomy.
CHARLES F. CHANDLER, Ph. D., Professor of Chemistry and Medical Jurisprudence.
EDWARD CURTIS, M. D., Professor of Materia Medica and Therapeutics.
FRANCIS DELAFIELD, M. D., Adjunct Professor of Pathology and Practical Medicine.
JOHN G. CURTIS, M. D., Adjunct Professor of Physiology and Hygiene; Secretary of the Faculty.
WM. DETMOLD, M. D., Emeritus Professor of Military and Clinical Surgery.
WILLIAM H. DRAPER, M. D., Professor of Clinical Medicine.
CORNELIUS R. AGNEW, M. D., Clinical Professor of Diseases of the Eye and Ear.
ABRAHAM JACOBI, M. D., Clinical Professor of Diseases of Children.
FESSENDEN N. OTIS, M. D., Clinical Professor of Venereal Diseases.
EDWARD C. SEGUIN, M. D., Clinical Professor of Diseases of the Mind and Nervous System.
GEO. M. LEFFERTS, M. D., Clinical Professor of Laryngoscopy and Diseases of the Throat.
WILLIAM T. BULL, M. D., Demonstrator of Anatomy.
GEORGE HENRY FOX, M. D., Clinical Professor of Diseases of the Skin.
WILLIAM S. HALSTEAD, M. D., First Assistant Demonstrator of Anatomy.
FRANCIS R. MARKOE, M. D., Second Assistant Demonstrator of Anatomy.
T. MITCHELL PRUDDEN, M. D., Director of the Physiological and Pathological Laboratory of the Alumni Association.

THE COLLEGIATE YEAR consists of One Session, attendance upon which is required for graduation. The Session for 1882-83 begins October 2d and continues until May, with short vacations at Thanksgiving and at Christmas.

TUITION is by the following method:

I. DIDACTIC LECTURES—During the Session from two to six lectures are given daily by the Faculty. Attendance obligatory.

II. CLINICAL TEACHING—Ten Clinics covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, The Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

IV. PERSONAL INSTRUCTION—Personal instruction is given in *Practical Anatomy, Experimental Physiology, Operative Surgery, Minor Surgery, Physical Diagnosis, Otology, Laryngoscopy, in Normal and Pathological Histology and the examination of the Urine.* Attendance optional, except upon Practical Anatomy.

EXPENSES—The *necessary* expenses are a yearly matriculation fee ($5), the fees for the lectures of the Session, $20 for the course on each branch, or $140 for the entire curriculum), the Practical Anatomy fee ($10 and a small charge for material), and a Graduation Fee of $30. The GRADUATING COURSE requires three years' study, with a preceptor (including the time spent in attendance at the College), attendance upon two full courses of lectures and upon one course of Practical Anatomy. Remissions and reductions of lecture fees are made to graduates and students who have already attended two full courses. *All fees are payable in advance.* Board can be had for from $5 to $9 a week, and the Clerk of the College will aid students in obtaining it.

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INDEX TO ADVERTISEMENTS:

	PAGE.
Sharpe & Dohme—*Manufacturing Chemists*, 2d Page Cover.	
McIntosh Galvanic Belt & Battery Co., 2d Page Cover.	
Lactopeptine, 3d Page Cover.	
Medical Dept., University of La., 4th Page Cover.	
F. Frederickson—*Druggist*	i
The Maltine Manufacturing Co.	ii
Circular New Orleans Medical Journal	iii
Fredk. DeBary & Co.—*Apollinaris Water*—*Hunyadi Janos Mineral Water*	iv
Beef Peptonoids	1
Thomas Leeming & Co.—*Nestle's Milk Food*	2
McIntosh *Galvanic and Faradic Battery*	2
A. A. Mellier—*Elliot's Patent Saddle Bag.*	3
E. F. Houghton & Co—*Ungentum Petrolei.*	4
G. R. Finlay & Co—*Druggists*	5
Grimaults & Co.'s Quin. Fer. Wine, etc	6-7
Lambert & Co.—Listerine	8
A McDermott—*Dr. Bly's Pat. Art Limbs*	9
H. Planten & Son—*Planten's Capsules*	9
I. L. Lyons—*Druggist*	10–11
Jas. I Fellows—*Fellows' Hypo-phos-phites*	12
Bellevue Hospital Medical College, N. Y.	13
Sharpe & Dohme—*Manf'g. Chemists*	14
Codman & Shurtleff—*Aiomizing Apparatus*	15
J. C. Richardson—*Celerina*	16
New Orleans Druggists and Apothecaries.	17-18
Dr. McIntosh's—*Natural Uterine Supporter*	19
McIntosh Combined Galvanic ahd Faradic Battery	20
E Scheffer—*Pepsin*	21
L. Graham & Son—*Book and Job Printers.*	21
P. L. Cusachs—*Druggist*	22
Kidder & Laird—*Hydroleine*	23
John Wyeth & Bro.—*Compressed Soluble Hypodermic Tablets*	24
Comparative Study of the Varieties of Peptones, their Preparation and Uses,	A,B,C,D

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Tribune Medicale, p. 539, November 5th, 1882.

PHARMACOLOGICAL REVIEW.

Comparative Study of the Varieties of Peptones, their Preparation and Uses.

For several years past, the medical journals in France and in foreign countries have discussed the question of the relative merits of the different peptones prepared from meat; at present every one is familiar with these products.

Before, however, finally deciding the important place in therapeutics to which they lay just claim, it appears to us useful to carefully examine the various modes employed to obtain them.

The physician will then be able to correctly appreciate the quality and nutritive power of the preparation he selects for use.

It is with the above object before us that we pass in review the modes of preparation of the different peptones.

Pepsic Peptone of Chapoteaut.

This peptone is obtained in the following manner:

50 kil. (lbs. 125), meat without bone or fat; 1 kil., 200 grms. of pepsine, digesting 800 times its weight of fibrine; (200 litres) water; 200 grms. sulphuric acid, are kept at a constant temperature, 45 to 50 C., 113° to 120° Fahr. during 14 hours. At the end of this time the solution of the meat is complete.

This solution freed from acidity, filtered, and evaporated rapidly at the lowest possible temperature, yields from 23 to 24 kil. of a fluid of syrupy consistency, with a density of 18 Baumé, at the ordinary temperature of the atmosphere.

This fluid with the addition of sufficient alcohol to prevent fermentation is called conserve de peptone; registering in density 15 Baumé at a temperature 15° C. (59° Fahr.), becoming gelatinized at a lower, and liquifying at a higher temperature.

This syrupy peptone contains 35 to 36 per cent. of solid matter, of which 28 to 30 per cent. is precipitated by alcohol at 92° (1 part of conserve to 12 alcohol at 95°).

The saline residuum of this peptone so prepared, is the result of the natural phosphates contained in the meat from which it is derived.

Chlorhydric Peptone.

This peptone is the result of the action of the pepsine from coatings of the stomach on meat, with the presence of chlorhydric acid, which subsequently saturated by carbonate of soda, remains in this pepsine as chloride of sodium, which is found in the ashes.

One kil. of meat gives 370 grms. of peptone at 18° and 220 grms. of residuum untouched. This peptone contains not only peptonized meat, but also the product from the digestion of the pepsine secreting glands, and of the fibrous portions of the stomach which are removed with the coatings of the stomach.

Pancreatic Peptone.

This peptone obtained by the action of the pancreas of the pig, on meats mixed with a slightly acidulated aqueous fluid, requires large quantites of the pancreas which is of weak digestive power, and often inadequate to the effect required.

This operation which requires to be done in a warm bath, at a temperature of 30° C. or 40 C. produces frequently decomposition, with the evolution of sulphurous gasses easily recognizable.

The pancreas itself is difficult to preserve without decomposition, soon becoming charged with bacteria, communicating to the resulting products a decidedly disagreeable taste, as asserted by *Dr. Joseph Michel.*

It is for the above reason, Dr. Darunhaury refuses to prescribe any of those peptones, prepared from meat digested with the pancreas itself, or in pancreatic fluids as described above.

Their richness in *dry peptones* is necessarily uncertain from their mode of preparation; varying between 13 per cent., 15 per cent., 18 per cent.

They also contain besides glucose glycerine which prevents their being perfectly dried, or satisfactorily analysed.

Tartric Peptones.

These peptones are obtained by the action of the digestive ferment on meat, in presence of tartaric acid, which acid is subsequently found in the preparation under the form of *tartrate of potassa.*

To better fulfill our purpose, we present in a *tabulated* form, the result of the different analysis of the several peptones.

	DRY PEPTONE, OBTAINED BY 15 PARTS OF ABSOLUTE ALCOHOL	ANALYSIS OF THE SYRUP PEPTONES.	COMPOSITION CENTESSIMAL OF DRY PEPTONES.
Typical Peptone	"	"	Carbon .....52.05 Hydrogen..... 7.08 Nitrogen 17.04
Chapoteaut's Peptone	26 to 28 per cent	Density, 1.143 18° Baumé N., 5.34 per cent.	Carbon .....46.20 Hydrogen..... 6.50 Nitrogen.....16.19 Ash 8.04
Chlor-hydric Peptone	20 to 22 per cent.	Density, 1.150 19° Baumé N., 4 per cent.	Carbon .....40.93 Hydrogen..... 6.36 Nitrogen.....13.18 Ash 5.10
Pancreatic Peptone	16 to 18 per cent.	Density, 1.108 14° Baumé N., 2·3 per cent.	C. } Product impos- H. } sible to dry. Nitrogen..... 9.25
Tartric Peptone	23 to 25 per cent.	"	Carbon .....44.38 Hydrogen..... 6.02 Nitrogen.....13.45 Ash 12.91

To resume, we find, in chlorhydric peptone (from coatings of stomach and meats) that the resulting product contains the peptone from meats and the pepsigenic glands of the stomach which have been digested in its preparation, from the time that they ceased to form part of a *living* organism.

These pancreatic peptones, formed from meat digested with the pancreas under the influence of the ferment contained in the glands are by no means easy to preserve.

In Chapoteaut's mode of preparation, the gastric ferment acts alone. Such as is the case in the ordinary digestion in the stomach, the resulting peptones of meat are specifically obtained by the action of a particular and powerful pepsine developed by the author whose recent communications to the academy of sciences have thrown a new light upon this most interesting question.

According to *Chapoteaut*, the *gastric juice* is composed of three substances: one albuminous *not* dissolving *fibrine*, a second dissolving it rapidly and in large quantity—a third, an *organic acid*, the nature of which is not yet fully determined.

These researches on the nature of the *gastric-juice* have led him to a special study of the *peptones*; this explains why he has reproduced in the making of his preparations the simple and efficacious means employed by nature.

It is for this reason that Chapoteaut's peptones only, contains those phosphatic salts, the natural result of the digestion of meat, while the others contain lactates, chlorates or alkaline tartrates, which render these preparations frequently difficult to retain on the stomach and renders them often so laxa-

tive in effect as to make their inhalation in phthisis, (not to mention other diseases, where they are contraindicated) useless if not positively injurious.

Nothing similar is to fear in the use of Chapoteaut's preparation, its richness, its centissimal composition and its perfect preservation, puts it without the pale of criticism.

Chapoteaut's pepsic peptone is put upon the market in three distinct varieties.

The liquid peptone resulting from the concentration of meat digested as specified with pepsine allows the preparation of the following:

Conserve of Pepsic Peptone.

This brown, neutral and aromatic liquid, easily keeps in all climates; each teaspoonful is equivalent to twice its weight in meat, and may be given in broth, syrups, or with a small quantity of sugar, and in the form of nutritive enemata.

Chapoteaut's Powder of Pepsic Peptone.

This powder, easily soluble in water, broth or wine, contains an equivalent 20 to 22 grammes (33 to 35½) of beef digested and of easy assimilation. This powder is obtained by evaporating to dryness by steam the first named preparation; it contains an equivalent of 16 per cent. *nitrogen*, while other analogous preparations give by analysis only from 10 to 13 per cent.

In well stopped vials, it may be kept for an indefinite period, and is always ready for immediate use.

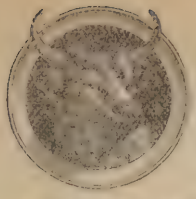
A third form is:

Chapoteaut's Wine of Pepsic Peptone.

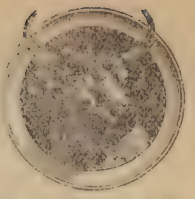
This wine is an excellent food for invalids and children, being a solution of pure pepsic peptone in sherry wine; by this means it is free from fear of decomposition.

This peptone, so rich in nitrogen, thus preserves all its nutritive qualities. Each wineglassful contains 10 grammes, or nearly half an ounce of beef; the ordinary dose is from one to two wineglassfuls at the beginning or end of meals.

To insure a true appreciation of its therapeutic importance, we will publish from time to time carefully collected clinical observations on its use.



BEEF PEPTONOIDS,



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BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescense, and in order to present the preparation in a powered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive elements and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of BEEF PEPTONOIDS contains more nutritive elements than ten pounds of any extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession.

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BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water or inert matter.*

The favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent Physicians, who employed the preparation with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be taken by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

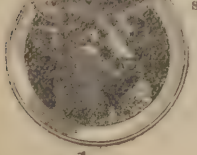
We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would in many cases, produce lasting injury and fatal results.

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We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.

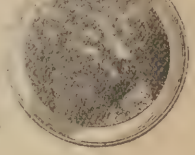


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Preparation.—For an infant under three months, mix one tablespoonful of the Food with ten of hot or cold water. Hold over the gas, lamp, or stove, with constant stirring, until it has boiled two or three minutes. Cool to about blood heat, and give in feeding bottle. For a child three to ten months old, mix in proportion of eight of water to one of Food. For a pap, in proportion of five of water to one of Food.

Value.—Containing only Milk, Wheaten Bread Crust and Sugar, this Food supplies all the elements necessary for complete alimentation, in the most easily assimilable form; the *Milk* furnishing Casein, Albumen, Hydrates of Carbon and Sugar of Milk, while the *Wheaten Bread Crust* supplies Nitrogen, and is especially rich in *Saline Matter*, particularly in potash salts, mainly in the form of phosphates, and Carbon is obtained from *Cane Sugar*. It makes pure blood, firm flesh, hard muscle, and tough bone. It is a sure preventive of Summer Complaint, and by its use the bowels can be kept in just the state desired. It is retained on the stomach, often, when everything else is rejected. The simplicity of its preparation and the uniformity obtainable are two points the value of which cannot be overestimated.

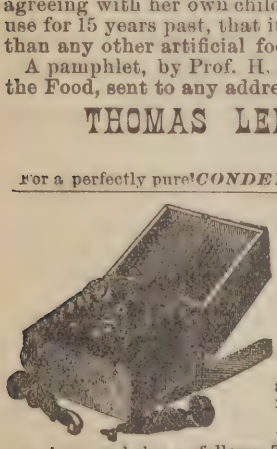
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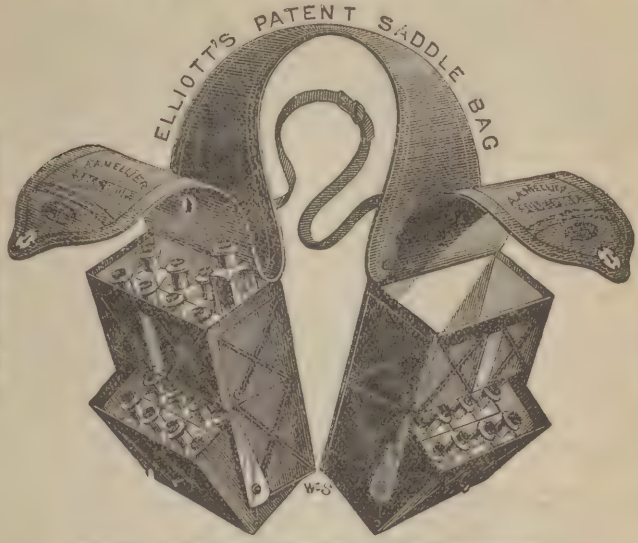
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Emeritus Professor of Clinical Surgery in the University of New York, Visiting Surgeon to Presbyterian Hospital, etc.

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HENRY O. MARCY, M.D.,
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Ex-President Medical and Chirurgical Faculty, Maryland, and Baltimore Academy of Medicine; Vice-President American Gynecological Society.

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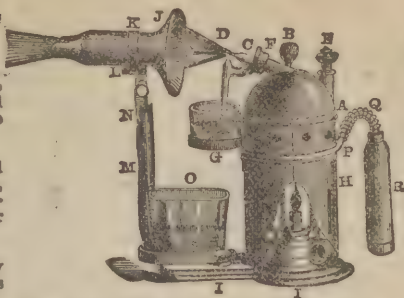
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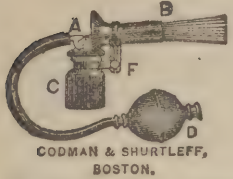
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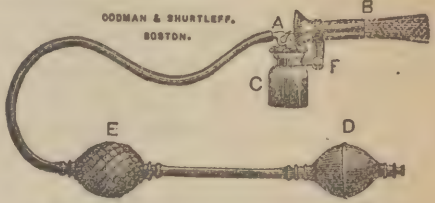
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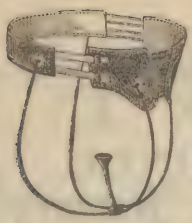
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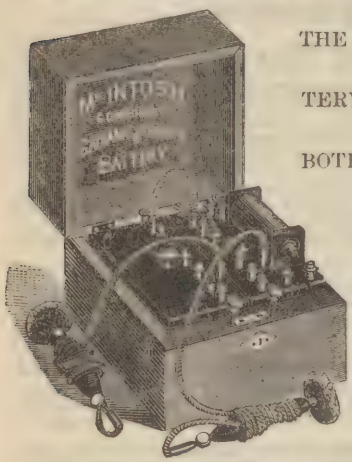
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INDEX TO ADVERTISEMENTS:

	PAGE
harpe & Dohme—*Manufacturing Chemists*, 2d Page Cover.	
McIntosh Galvanic Belt & Battery Co., 2d Page Cover.	
Memphis Hospital Medical College, Memphis, Tenn	i
teed & Carnrick—*Maltine Preparations*	ii
Theodore Metcalf & Co—*Mellin's Food*	iii
Fredk. DeBary & Co.—*Apollinaris Water—Hunyadi Janos Mineral Water*	iv
Trommer Extract of Malt Company	1
Thomas Leeming & Co.—*Nestle's Milk Food*	2
A. A. Mellier—*Elliot's Patent Saddle Bag*	3
Kidder & Laird—*Hydroleine*	4
Kidder & Laird—*Kidder's Saccharated Pepsine*	5
E. F. Houghton & Co—*Ungentum Petrolei*	6
J. R. Finlay & Co—*Druggists*	7
Gremaults & Co.'s Quinquina Ferraginous Wine	8
DeLeras—Advantages of the Soluble Phosphate of Lime	9
Lambert & Co.—Listerine	10
A McDermott—*Dr. Bly's Patent Artificial Limbs*	11
I. L. Lyons—*Druggist*	12, 13
James I Fellows—*Fellows' Hypo-phos-phites*	14
Bellevue Hospital Medical College, New York	15
Sharpe & Dohme—*Manufacturing Chemists*	16
Codman & Shurtleff—*Atomizing Apparatus*	17
The Jefferson Medical College of Philadelphia	18
J. C. Richardson—*Celerina*	19
New Orleans Druggists and Apothecaries	20, 21
H. Planten & Son—*Planten's Capsules*	22
Dr. McIntosh's—*Natural Uterine Supporter*	23
McIntosh *Galvanic and Faradic Battery*	24
E Scheffer—*Pepsin*	25
L. Graham & Son—*Book and Job Printers*	25
College of Physicians and Surgeons	26
University of the City of New York	27
John Wyeth & Bro.—*Compressed Soluble Hypodermic Tablets*	

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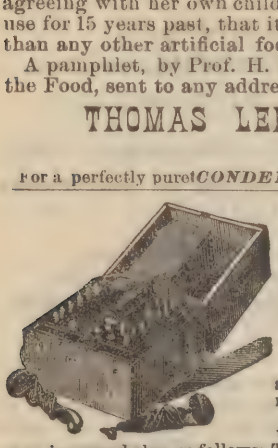
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Respectfully submitted.

R. OGDEN DOREMUS, M.D., LL.D,
Prof. Chemistry and Physics, College City of New York,
and Prof. Chemistry and Toxicology, Bellevue Hosp. Med. Col.

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Kidder & Laird.

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S. J. HILLMAN, M. D.

SOUTH BEND, IND., Oct. 22d, 1878.

Kidder & Laird.

Gentlemen: I have used Kidder's Saccharated Pepsine in some very aggravated cases of indigestion, and have found it equal to any Pepsine that I have ever used.

Yours respectfully, O. P. BARBOUR, M. D.

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H. C. MOORE, M. D.

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Yours respectfully, M. E. JOSSELYN.

NO. BROOKFIELD, MASS., May 18th, 1877.

Kidder & Laird.

Gentlemen: I have tested the sample (chemically) of Pepsine you sent me, and find it to be superior to that I have been in the habit of prescribing (Hawley's).

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Kidder & Laird.

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A. P. REED, M. D.

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Kidder & Laird.

Gentlemen: I have used the Kidder's Saccharated Pepsine, and have taken considerable trouble to test it and watch its action. I think it superior to any preparation I have ever used containing Pepsine—*not even excepting Lactopeptine.* Yours, etc.,

J. C. WHITTIER, M. D.

Messrs. Kidder & Laird. AMELIA, OHIO.

Gentlemen: The Kidder's Saccharated Pepsine sent to me was of an excellent quality, and gave general satisfaction, after which I ordered more of it, and have used nearly all of the second installment. Your Pepsine is not only *cheap* but it is one of the very *best* articles of Pepsine in the market. Very respectfully,

M. M. INGALLS, M. D.
Ex.-Pres. Nat'l E. M. M. Assoc.

CHICAGO, OHIO, June 26th, 1878.

Kidder & Laird.

Gentlemen: Kidder's Saccharated Pepsine answered a better purpose than any other preparation of the kind that I have ever used in my practice of over ten years. I intend to continue to use it.

Yours, etc., D. H. YOUNG, JR., M. D.

Kidder & Laird. IRONTON, OHIO, June 21st, 1878.

Gentlemen: Being a constant user of Pepsines, I took the sample you sent me of Kidder's Saccharated Pepsine, and I found it equal to any, and superior to a great many, of the preparations of Pepsine. I have tried most of the preparations in market. Yours, etc.,

O. ELLISON, M. D.

PHILA., PA., 2280 FRANKFORD AVE.

Kidder & Laird.

Gentlemen: Since the receipt and trial of your sample or Kidder's Saccharated Pepsine I have used four pounds of it, and come to the conclusion that it fully answers all the purposes that can be reasonably expected from the use of "Pepsine" equally as well as the highest priced articles, which I only keep on hand in case they are prescribed by other physicians. In my own practice I use your Pepsine exclusively.

Yours respectfully, FRED. PLEIBEL, M. D.

Kidder & Laird. NORFOLK, VA., Sept. 23d, 1878.

Gentlemen: The reports from the physicians who have had samples of your Pepsine is found in their continued use of it in their prescriptions on my file, and who have told me that it fulfills all that could be desired of a pure and unadulterated Pepsine. In my own practice I have carefully noted its effects; have placed it in comparison with Boudault's, Scheffer's and Hawley's; in each case, whether fancied or real, the disposition to nausea has been less out of your preparation than with any other. I shall continue to keep that, and that only, on my prescription counter.

Yours truly, J. W. THOMAS, JR.

CHATHAM, CANADA WEST, Nov. 2d, 1878.

Kidder & Laird.

Gentlemen: I find your Pepsine acts well in all the cases in which I have tried it. I have been in the habit of using almost all the different makes of Pepsine, French, English and American, as well as Lactopeptine and Inglovin, and find your Pepsine equal to any of them. Yours truly,

J. C. BRIGHT, M. D., M. C. P. & P. O.

We have over 5,000 letters from Physicians and Druggists endorsing and recommending KIDDER'S SACCHARATED PEPSINE. The quality is the best, and the price lowest in market.

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Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia, U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ $C_{16}H_{34}$ and $C_{16}H_{32}$. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C_7H_{16} and C_7H_{14} respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

---

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & CO.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & CO.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A. M., M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

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The preparations of Iron are not always well borne by the stomach. In order to obvitae such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

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Pepsic Peptones, with the Beef Meat

OF CHAPOTEAUT, PHARMACIST, OF THE FACULTY OF PARIS.

These Peptones are very pure and prepared with great care, with the pure beef meat well digested and rendered assimilable by the gastric pepsin; before leaving our laboratories they are brought to their extreme state of concentration, that is, at 33 p. 100; they are rich in alimentary principles, and cause a rapid increase in nutrition in the whole organism. They are quite different from the other Peptones sold in the market, which are prepared with the pancreas of hog, and have a very disgusting smell and disagreeable taste, susceptible of fermentation and putrefaction, and containing some foreign matters and very little peptonized meat from 8 to 13 p. 100.

The following preparations were found to be the best to facilitate the use of pepsic peptones, and they may answer to all therapeutical indications:

Chapoteaut's Preserve.

This preserve is neutral and aromatic; it keeps well; it acquires the consistency of jelly at the temperature of 15° C., and melts at 35°. A tea spoonful represents double of its weight of beef meat. It may be taken either pure, or mixed with *bouillon*, with sweetened sugar, cakes, grapes. It may also be administered as an enema.

Chapoteaut's Wine.

This wine contains for each wine glass full 10 grammes of beef meat. It has a very agreeable taste, is an excellent nourishment, and well likod by the patients. The dose is of one or two wine glass fulls before meals.

PRINCIPAL INDICATIONS—Anæmia, Dyspepsia, Cachexia, General Debility, Atony of the Stomach and Bowels, Convalescences, Alimentation of wet nurses, or children of old men, and of diabetic and phthisical people.

Syrop of Iodined Horse Radish,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

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1st. Solution and syrup containing 20 centigrams of the salt of iron in each tablespoon u

2d. They are colorless preparations without taste or smell of iron; they have no action on the teeth.

3d They do not cause constipation, on account of a small quantity of sulphate of soda, which is produced during the preparation of this salt, without causing any influence on the savour of the medicament.

4th. They combine iron with phosphoric acid, the two principal elements of the bones and blood—a circumstance, which is of a great influence on digestion and respiration.

5th. The salt is not precipitated by the gastric juice, consequently it is immediately digested and assimulated and always well borne by the most delicate persons, whose stomachs cannot tolerate other ferruginous preparations.

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AN ALIMENT AS WELL AS A MEDICAMENT,

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As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

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The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

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DOSE.—One teaspoonful *three* or *more* times a day (as indicated). As a local application to ulcers, wounds and abscesses, or as a gargle, mouth-wash, inhalant or injection, it can be used *ad libitum*, diluted as desired.

LISTERINE is a **Powerful, Safe, and Pleasant** Antiseptic. The beneficial results following its use in Phthisis, Diphtheria, Catarrh, Dysentery, Scarlatina, Erysipelas, Small pox, Typhoid and Malarial Fevers, etc., proves it to be A RESTORATIVE ANTISEPTIC *of the very highest order of merit.* It is the most efficient agent to disinfect the hands after surgical or gynecological operations, and is **the best** injection in Leucorrhœa, Gonorrhœa, etc., used in the proportion of two or three parts water and one part LISTERINE.

FULL CLINICAL NOTES from the following and many other well-known physicians sent upon request.

PHILIP S. WALES,
Surgeon General United States Navy.

CHRISTOPHER JOHNSTON, M.D.,
Emeritus Professor of Surgery, University of Maryland, etc., etc.

MONTROSE A. PALLEN, M.D., LL.D.,
Professor of Gynecology, University of City of New York, and Surgeon to the Maternity Hospital, etc.

HENRY O. MARCY, M.D.,
Boston.

W. W. DAWSON, M.D.,
Professor of Surgery, Medical College of Ohio, etc., etc.

H. P. C. WILSON, M.D.,
Ex-President Medical and Chirurgical Faculty, Maryland, and Baltimore Academy of Medicine; Vice-President American Gynecological Society.

JOSEPH TABER JOHNSON, A.M., M.D.,
Professor of Obstetrics and Diseases of Women and Infants, Medical Department University of Georgetown, D.C.

EDWARD W. JENKS, M.D., LL.D.,
Professor of Diseases of Women, and of Clinical Gynecology, Chicago Medical College.

R. A. KINLOCH, M.D.,
Professor of Surgery and Clinical Surgery, Medical College of the State of South Carolina.

OSCAR J. COSKERY, M.D.,
Professor of Surgery, College of Physicians and Surgeons, Baltimore.

DUNCAN EVE, M.D.,
Professor of Surgery, Medical Department University of Tennessee.

E. B. STEVENS, A.M., M.D.,
President of the Obstetrical Society of Cincinnati.

E. H. GREGORY, M.D.,
Professor of Surgery, St. Louis Medical College, Surgeon to St. Louis Hospital, etc.

T. F. PREWITT, M.D.,
DEAN, *Professor of Surgery, Missouri Medical College, Surgeon to St. John's Hospital, etc.*

P. V. SCHENCK, M.D.,
Surgeon in charge St. Louis Female Hospital.

NATHAN S. LINCOLN, M.D.,
Emeritus Professor of Surgery, Medical Department Columbia University, Washington, D.C.

FESSENDEN N. OTIS, M.D.,
Clinical Professor of Venereal Diseases, College of Physicians and Surgeons, New York.

CHARLES T. PARKES, M.D.,
Professor of Anatomy, Rush Medical College, Chicago, Ill.

PERCY NORCOP, M.D., F.R.C.S.,
Formerly Surgical Dresser to Professor Lister.

E. FLETCHER INGALS, A.M., M.D.,
Professor of Diseases of the Chest and Physical Diagnosis, Rush Medical College; Women's Medical College, etc., etc., Chicago, Ill.

A. F. ERICH, M.D.,
Professor of Diseases of Women, College of Physicians and Surgeons, Baltimore.

J. W. UNDERHILL, M.D.,
Professor of Obstetrics, Cincinnati College of Medicine and Surgery.

THOMAS F. WOOD, M.D.,
President of the Medical Society of North Carolina, Wilmington, N.C.

JAMES M. HOLLOWAY, M.D.,
Professor of Surgery, Hospital College of Medicine, and Kentucky School of Medicine, Louisville, Ky.

HARVEY L. BIRD, A.M., M.D.,
PRESIDENT, *Professor of Obstetrics and Diseases of Women and Children, Baltimore Medical College.*

A. M. OWEN, M.D.,
Professor of Surgery, Evansville Medical College.

GEO. J. ENGELMANN, M.D.,
Professor of Obstetrics in the Post-Graduate School of the Missouri Medical College.

F. J. LUTZ, A.M., M.D.,
Surgeon to Alexian Brothers Hospital; Physician to Misericordia Asylum for the Insane and Nervous.

E. S. LEMOINE, M.D.,
Physician to St. Luke's Hospital, St. Louis.

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COD LIVER OIL with LACTO-PHOSPHATE OF LIME;
COD LIVER OIL with SOLUBLE PHOSPHATE OF LIME;
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BERGEN COD LIVER OIL, WHITE;
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FLUID EXTRACT ERGOT prepared from the selected grains, and all fluid Extracts of STANDARD STRENGTH.

All new and rare chemicals kept in stock.

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Contains **THE ESSENTIAL ELEMENTS** to the Animal Organization—
Potash and Lime;

The **OXYDIZING AGENTS**—Iron and Manganese;

The **TONICS**—Quinine and Strychnine;

And the **VITALIZING CONSTITUENT**—Phosporous,

Combined in the form of a Syrup, with *slight alkaline reaction.*

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGN REPUTATION in America, and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

IN CASES where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

ITS ACTION IS PROMPT, stimulating the appetite, and the digestion, it promotes assimulation, and enters directly into the circulation with the food products.

THE PRESCRIRED DOSE produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of **mental and nervous affections.**

From its exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

Each Bottle of Fellows' Hypophosphites contains 128 doses.

Prepared by JAMES I. FELLOWS, Chemist,

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CITY OF NEW YORK.

SESSION OF 1882-3.

The COLLEGIATE YEAR in this Institution embraces the Regular Winter Session and a Spring Session. The REGULAR SESSION will begin on Wednesday, September 20, 1882, and end about the middle of March, 1883. During this Session, in addition to four didactic lectures on every week day except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. The SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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Dissection Fee (including material for dissection)	10 00
Graduation Fee	30 00

No Fee for Lectures are required of Graduates of three years' standing, or of third-course Students who have attended their second course at the Bellevue Hospital Medical College.

FEES FOR THE SPRING SESSION.

Matriculation (Tickets valid for the following Winter)	$ 5 00
Recitations, Clinics and Lectures,	40 00
Dissection (Tickets valid for the following Winter),	10 00

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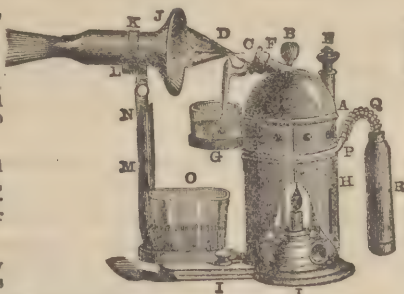
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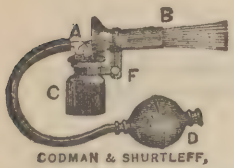
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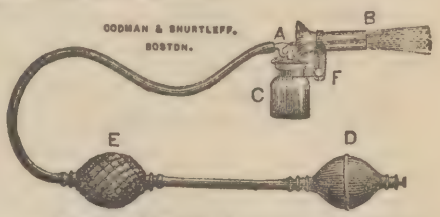
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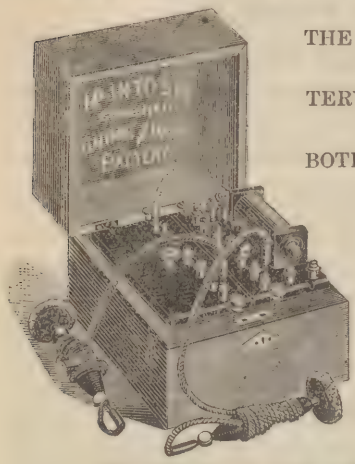
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THE PRELIMINARY SESSION will begin on Wednesday, September 20, 1882, and end October 4, 1882. It will be conducted on the same plan as the Regular Winter Session.

THE REGULAR WINTER SESSION will begin October 4, 1882, and end about the middle of March, 1883. The Plan of Instruction consists of Didactic and Clinical Lectures, recitations and Laboratory work in all subjects in which it is practicable. To put the laboratories on a proper footing a new building has been erected at an expense of thirty thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operatic Surgery and Gynæcology.

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THE SPRING SESSION will begin about the middle of March and end the last week in May. The daily Clinics and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty.

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II. CLINICAL TEACHING—Ten Clinics covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, The Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

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INDEX TO ADVERTISEMENTS:

	PAGE
Sharpe & Dohme—*Manufacturing Chemists*, 2d Page Cover.	
McIntosh Galvanic Belt & Battery Co., 2d Page Cover.	
Memphis Hospital Medical College, Memphis, Tenn	i
Reed & Carnrick—*Maltine Preparations*	ii
Theodore Metcalf & Co—*Mellin's Food*	iii
Fredk. DeBary & Co.—*Apollinaris Water—Hunyadi Janos Mineral Water*	iv
Trommer Extract of Malt Company	1
Thomas Leeming & Co.—*Nestle's Milk Food*	2
A. A. Mellier—*Elliot's Patent Saddle Bag*	3
Kidder & Laird—*Hydroleine*	4
Kidder & Laird—*Kidder's Saccharated Pepsine*	5
E. F. Houghton & Co—*Ungentum Petrolei*	6
G. R. Finlay & Co—*Druggists*	7
Gremaults & Co.'s Quinquina Ferraginous Wine	8
DeLeras—Advantages of the Soluble Phosphate of Lime	9
Lambert & Co.—Listerine	10
A McDermott—*Dr. Bly's Patent Artificial Limbs*	11
I. L. Lyons—*Druggist*	12, 13
James I Fellowe—*Fellows' Hypo-phos-phites*	14
Bellevue Hospital Medical College, New York	15
Sharpe & Dohme—*Manufacturing Chemists*	16
Codman & Shurtleff—*Aionizing Apparatus*	17
The Jefferson Medical College of Philadelphia	18
J. C. Richardson—*Celerina*	19
New Orleans Druggists and Apothecaries	20, 21
H. Planten & Son—*Planten's Capsules*	22
Dr. McIntosh's—*Natural Uterine Supporter*	23
McIntosh *Galvanic and Faradic Battery*	24
E Scheffer—*Pepsin*	25
L. Graham & Son—*Book and Job Printers*	25
College of Physicians and Surgeons	26
University of the City of New York	27
John Wyeth & Bro.—*Compressed Soluble Hypodermic Tablets*	

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"*Speedy, Sure and Gentle.*"—Prof. ROBERTS, M.D., F.R C.P.
'*Unrivalled as a Customary Aperient.*"—British Med. Journal.
"*The Potent Hunyadi János.*"—**Dr. Milner Fothergill.**
"*Less drastic than Püllna and Freidrichshall, and produces no distress or uneasiness.*"—**Prof. Aitken, M.D., F.R.S.**
"*Most certain and most comfortable.*"—Insp.-Gen'l MACPHERSON, M D.,
Author of 'Baths and Wells of Europe.'

To secure the Genuine Water, require bottles with a blue label bearing the name of the

APOLLINARIS COMPANY, Limited, 19 Regent St., London, Eng.

SOLE AGENTS FOR THE UNITED STATES,

FREDK. DE BARY & CO, 41 and 43 Warren Street, New York.

It is most efficacious when taken in the morning fasting, warmed to a temperature not below 60°. or when an equal quantity of hot water is added to it.

TROMMER EXTRACT OF MALT.

"The proper medicinal value of Malt Extracts must be held to depend on the amount of diastase which they contain. * * * * * In Malted Barley we have at command an unlimited suppy of diastatic power."

WILLIAM ROBERTS, M. D., F. R. S.,
Prof. Clinical Medicine, Owens College;
Physician to the Manchester Infirmary, etc.

"This Extract of Malt is one of the best samples which have come under my notice. One hundred parts contain two and five-tenths parts diastase."

A. RIVERS WILSON, Ph.D.,
Author of "Text-Book of Chemical Analysis," etc.

"It has evidently been prepared with great care and judgment, as it retains the property of acting on amylaceous bodies as diastase does."

T. REDWOOD, Ph.D., F.R.C.S., etc.,
Prof. Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain.

Our Extract of Malt, the first manufactured in America, is *prepared by an improved process which prevents injury to its properties or flavor by excess of heat.* It represents the soluble constituents of malt and hops, viz: *malt sugar, dextrine, albuminoids (chiefly diastase), resin,* and *bitter of hops, phosphates of lime and magnesia.* It is a most efficient therapeutic agent for the restoration of feeble and exhausted constitutions, being rich in both muscle and fat-producing material, and a most valuable restorative in diseases attended by disordered digestion and emaciation.

Our Malt Extract is sold throughout the United States, Great Britain the West Indies, and Central and South America, and elsewhere. In all those countries we have placed large supplies in the most important Hospitals, Asylums and Infirmaries, and in the hands of the leading physicians for trial in private practice. From these sources we have received abundant testimony to the excellence of our Extract in regard to purity and efficiency in the treatment of diseases in which its employment is indicated.

TROMMER EXTRACT OF MALT COMPANY,

FREMONT, OHIO

NESTLE'S MILK FOOD.

ITS PREPARATION AND VALUE FOR INFANTS.

Preparation.—For an infant under three months, mix one tablespoonful of the Food with ten of hot or cold water. Hold over the gas, lamp, or stove, with constant stirring, until it has boiled two or three minutes. Cool to about blood heat, and give in feeding bottle. For a child three to ten months old, mix in proportion of eight of water to one of Food. For a pap, in proportion of five of water to one of Food.

Value.—Containing only Milk, Wheaten Bread Crust and Sugar, this Food supplies all the elements necessary for complete alimentation, in the most easily assimilable form; the *Milk* furnishing Casein, Albumen, Hydrates of Carbon and Sugar of Milk, while the *Wheaten Bread Crust* supplies Nitrogen, and is especially rich in *Saline Matter*, particularly in potash salts, mainly in the form of phosphates, and Carbon is obtained from *Cane Sugar*. It makes pure blood, firm flesh, hard muscle, and tough bone. It is a sure preventive of Summer Complaint, and by its use the bowels can be kept in just the state desired. It is retained on the stomach, often, when everything else is rejected. The simplicity of its preparation and the uniformity obtainable are two points the value of which cannot be overestimated.

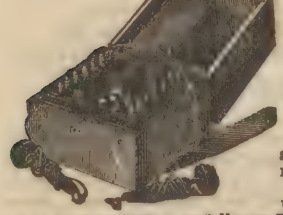
Particular Attention.—We do not claim that this Food will agree with *all* children. We do not think that any artificial food will ever be made which will do this, as nature sometimes fails, a mother's milk not agreeing with her own child. We only claim, what has been proved by its use for 15 years past, that it will agree with a *larger proportion* of children than any other artificial food.

A pamphlet, by Prof. H. Lebert, of Berlin, giving fuller particulars of the Food, sent to any address on application to

THOMAS LEEMING & CO., Sole Agents,

18 College Place, New York City.

For a perfectly pure *CONDENSED MILK*, free from starch of any kind, try Nestle's.



DR. McINTOSH'S

Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

THE BEST

SADDLE BAG

IN THE MARKET.

IT HAS NO DRAWERS.
IT IS MADE OF ONE PIECE.



NICKEL PLATED FINISHINGS.
NO SEAMS OR STITCHES.

READ THE FOLLOWING ENDORSEMENT.

"I write to say that I am more than pleased with the Elliott' Patent Medica Saddle Bags, and I have used them sufficiently long to give me a very high appreciation of their compactness, lightness and convenience of arrangement. These advantages they present in an eminent degree over the styles generally in use. Physicians in country and town practice will find them useful and invaluable. I remain, very respectfully,

Your obedient servant,

A. M. FOUNTLEROY, M. D.,
Ex-President Medical Society of Virginia.

More Elliott's Patent are Sold than all others Combined.

ADOPTED BY THE U. S. GOVERNMENT.

Large Size, 30 Vials, Black or Light Leather, with 100 Labels - - - $12.00
Small " 24 " " " " - - - 11.00

For Sale by all Druggists and Dealers in the United States.

Send for Descriptive Circular. Avoid Cheap Imitations. See that the name "Elliott is on each Bag.

A. A. MELLIER,

SOLE PROPRIETOR,

IMPORTER AND WHOLESALE DRUGGIST,
ST. LOUIS.

For Consumption and Wasting Diseases.

HYDROLEINE

Has been proved of the highest value in CONSUMPTION and all WASTING DISEASES, invariably producing INCREASE in FLESH and WEIGHT.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonsful, equal to 120 drops contains:

Pure Oil	**80 m. (drops.)**	**Soda**	**1-3 Grains.**
Distilled Water	**85 " **	**Boric Acid**	**1-4 " **
Soluble Pancreatin	**5 Grains.**	**Hyocholic Acid**	**1-20 " **

DOSE.—Two teaspoonsful alone, or mixed with twice the quantity of soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY," by H. C. BARTLETT, Ph. D., F. C. S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M. D.

In these Treatises the Chemistry and Physiology of the Digestion of the Fats and Oils is made clear, not only by the description of a large number of experiments scientifically conducted, but by cases in which the deductions are most fully borne out by the results.

☞ **Copies of these valuable works will be sent free on application.**

HYDRATED OIL

HYDROLEINE

WATER AND OIL.

HYDROLEINE is readily tolerated by the most delicate stomachs, even when the pure Oil or the most carefully prepared Emulsions are rejected. The Oil is so treated with pancreatin, soda, boric and hyocholic acids, that the process of digestion is partially effected before the organs of the patient are called upon to act upon it. Consequently it is readily assimilated. It will nourish and produce increase in weight in those cases where oils or fats, not so treated, are difficult or impossible to digest. In CONSUMPTION and other WASTING DISEASES, the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE, which may be discontinued when the usual average weight has been permanently regained.

The permanence and perfection of the emulsion, and the extreme solubility of the HYDRATED OIL, solely prepared and sold by us under the name of HYDROLEINE, is shown by its retaining its cream like condition as long as the purest Cod Liver Oil will retain its sweetness. Unlike the preparations mentioned, or simple Cod Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

To brain workers of all classes, Hydrated Oil is invaluable, supplying as it does, the true brain food.
Economical in use—certain in result. Tonic—Digestive and Highly Nutritive.

NEW PRINCIPLE FOR THE ASSIMILATION OF FAT

KIDDER & LAIRD, Agents for the United States.

Depot, 83 John St., NEW YORK.

Price at Retail, $1 per Bottle.

BE PARTICULAR TO GET THE GENUINE

KIDDER'S SACCHARATED PEPSINE.

TAKE NO OTHER.

OUR PEPSINE IS NOT SOLD IN BULK. The only way you can get the genuine is in original packages, as follows:

ONLY STYLES OF KIDDER'S SACCHERATED PEPSINE,

One ounce, four ounce, and eight ounce oblong white flint glass bottles, with our name (Kidder & Laird) blown in the bottles, and sixteen ounce round (plain) bottles, all having on them our metallic caps and lables. THESE ONLY STYLES, THE GENUINE, ARE SOLD AT 35 CENTS PER OUNCE, AND $4.50 PER POUND.

PROF. DOREMUS' TEST.

THE COLLEGE OF THE CITY OF NEW YORK, cor. Lexington Ave. and 23d Street.

This is to certify that I received from my son, Thomas C. Doremus, Jr., a sample of Pepsine obtained by him at Messrs. KIDDER & LAIRD'S, 83 John Street, New York, from a barrel containing 200 lbs. of the same. That I have made ten determinations of the solvent power of this Pepsine, with the following result: Ten grains of the Pepsine placed in an ounce of distilled water, with ten drops of hydrochloric acid, and kept at the temperature of the human body for six hours, with frequent agitation, dissolved 197.1 grains of coagulated albumen out of 200 grains.

Respectfully submitted.

R. OGDEN DOREMUS, M.D., LL.D.,
Prof. Chemistry and Physics, College City of New York,
and Prof. Chemistry and Toxicology, Bellevue Hosp. Med. Col.

TESTIMONIALS.

Kidder & Laird. LAKEPORT, CAL., Aug. 23d, 1878.

Gentlemen: I have used the Kidder's Saccharated Pepsine in several cases of Catarrh of the Stomach, where all other Pepsines have failed. The Lactopeptine I cannot give to children at all, and find your Pepsine acts nicely. Yours, etc.,

P. H. THORNTON, M. D.

INDIANAPOLIS, IND., July 12th, 1878.

Kidder & Laird.

Gentlemen: Have given Kidder's Saccharated Pepsine in a number of cases of dyspepsia; also given it to the physicians in this locality, who were well pleased with the superior quality of it. Yours, etc.,

S. J. HILLMAN, M. D.

SOUTH BEND, IND., Oct. 22d, 1878.

Kidder & Laird.

Gentlemen: I have used Kidder's Saccharated Pepsine in some very aggravated cases of indigestion, and have found it equal to any Pepsine that I have ever used.

Yours respectfully, O. P. BARBOUR, M. D.

Kidder & Laird. ANNAPOLIS, June 20th, 1878.

Gentlemen: Since the reception of your sample of Kidder's Saccharated Pepsine we have used no other. We consider it a first-class preparation. We have never heard anything to the contrary. We shall continue to dispense it unless well-founded objections are made, which we do not fear. We purchase from Messrs. Thomsen & Muth. Yours, etc.,

J. F. PERKINS & BRO.

181 LEXINGTON ST., BALTIMORE, MD.

Kidder & Laird.

Gentlemen: Have used Kidder's Saccharated for the past year with entire satisfaction. I use no other, except specially prescribed. I obtain my supply from Messrs. W. H. Brown & Bro., or Messrs. Thomsen & Muth, Baltimore. Yours, etc.,

H. C. MOORE, M. D.

MALDEN, MASS., July 15th, 1878.

Kidder & Laird.

Gentlemen: We meant to have written to you before, to the effect that Kidder's Saccharated Pepsine was a complete success with some of the dyspeptics of this place; and it is highly recommended by the physicians, and they are prescribing it regularly to their patients.

Yours respectfully, M. E. JOSSELYN.

NO. BROOKFIELD, MASS., May 18th, 1877.

Kidder & Laird.

Gentlemen: I have tested the sample (chemically) of Pepsine you sent me, and find it to be superior to that I have been in the habit of prescribing (Hawley's).

Yours truly, L. A. NAN WAGNER, M. D.

ALLENVILLE, MO., May 28th, 1878.

Kidder & Laird.

Gentlemen: As you will remember sending me four ounces of your Saccharated Pepsine, please permit me to say in justice to yourselves, that I believe it to be the most efficacious of all the preparations of Pepsine now in use. I have used it in three well-defined cases of dyspepsia with success when the others had failed, except to give slight relief. I shall use it in all cases of indigestion hereafter. Yours respectfully,

A. P. REED, M. D.

PORTSMOUTH, N. H., Aug. 19th, 1878.

Kidder & Laird.

Gentlemen: I have used the Kidder's Saccharated Pepsine, and have taken considerable trouble to test it and watch its action. I think it superior to any preparation I have ever used containing Pepsine—*not even excepting Lactopeptine.* Yours, etc.,

J. C. WHITTIER, M. D.

Messrs. Kidder & Laird. AMELIA, OHIO.

Gentlemen: The Kidder's Saccharated Pepsine sent to me was of an excellent quality, and gave general satisfaction, after which I ordered more of it, and have used nearly all of the second installment. Your Pepsine is not only *cheap* but it is one of the very *best* articles of Pepsine in the market. Very respectfully,

M. M. INGALLS, M. D.
Ex.-Pres. Nat'l E. M. M. Assoc.

CHICAGO, OHIO, June 26th, 1878.

Kidder & Laird.

Gentlemen: Kidder's Saccharated Pepsine answered a better purpose than any other preparation of the kind that I have ever used in my practice of over ten years. I intend to continue to use it.

Yours, etc., D. H. YOUNG, JR., M. D.

Kidder & Laird. IRONTON, OHIO, June 21st, 1878.

Gentlemen: Being a constant user of Pepsines, I took the sample you sent me of Kidder's Saccharated Pepsine, and I found it equal to any, and superior to a great many, of the preparations of Pepsine. I have tried most of the preparations in market. Yours, etc.,

O. ELLISON, M. D.

PHILA., PA., 2280 FRANKFORD AVE.

Kidder & Laird.

Gentlemen: Since the receipt and trial of your sample or Kidder's Saccharated Pepsine I have used four pounds of it, and come to the conclusion that it fully answers all the purposes that can be reasonably expected from the use of "Pepsine" equally as well as the highest priced articles, which I only keep on hand in case they are prescribed by other physicians. In my own practice I use your Pepsine exclusively.

Yours respectfully, FRED. PLEIBEL, M. D.

Kidder & Laird. NORFOLK, VA., Sept. 23d, 1878.

Gentlemen: The reports from the physicians who have had samples of your Pepsine is found in their continued use of it in their prescriptions on my file, and who have told me that it fulfills all that could be desired of a pure and unadulterated Pepsine. In my own practice I have carefully noted its effects; have placed it in comparison with Boudault's, Scheffer's and Hawley's; in each case, whether fancied or real, the disposition to nausea has been less out of your preparation than with any other. I shall continue to keep that, and that only, on my prescription counter.

Yours truly, J. W. THOMAS, JR.

CHATHAM, CANADA WEST, Nov. 2d, 1878.

Kidder & Laird.

Gentlemen: I find your Pepsine acts well in all the cases in which I have tried it. I have been in the habit of using almost all the different makes of Pepsine, French, English and American, as well as Lactopeptine and Inglavin, and find your Pepsine equal to any of them. Yours truly,

J. C. BRIGHT, M. D., M. C. P. & P. O.

We have over 5,000 letters from Physicians and Druggists endorsing and recommending KIDDER'S SACCHARATED PEPSINE. The quality is the best, and the price lowest in market

Samples and Circulars sent to Druggist or Physicians on application to

KIDDER & LAIRD, 83 JOHN STREET, N. Y

For Sale at all Wholesale and Retail Druggists.

REGISTERED COSMOLINE TRADE MARK.

Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia U. S. A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the parafines and olefines of the formulæ C16H34 and C16H32. It contains but a small percentage of the parafines and olefines, corresponding to the formulæ C7 H16 and C7 H14 respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York, Visiting Surgeon to Presbyterian Hospital, etc.

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218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A. M., M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia.

G. R. FINLAY & CO.,

IMPORTERS

AND

WHOLESALE DRUGGISTS,

No. 35 Magazine St. and 12 Bank Place,

NEW ORLEANS, LA.

We keep constantly on hand a large and complete stock of

PURE **DRUGS** FRESH

bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) of

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES.

and all orders will be filled with attention to furnishing such [illegible]ores as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obvitae such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

Depot à Paris—8 rue Vivienne.

Pepsic Peptones, with the Beef Meat

OF CHAPOTEAUT, PHARMACIST, OF THE FACULTY OF PARIS.

These Peptones are very pure and prepared with great care, with the pure beef meat well digested and rendered assimilable by the gastric pepsin; before leaving our laboratories they are brought to their extreme state of concentration, that is, at 33 p. 100; they are rich in alimentary principles, and cause a rapid increase in nutrition in the whole organism. They are quite different from the other Peptones sold in the market, which are prepared with the pancreas of hog, and have a very disgusting smell and disagreeable taste, susceptible of fermentation and putrefaction, and containing some foreign matters and very little peptonized meat from 8 to 13 p. 100.

The following preparations were found to be the best to facilitate the use of pepsic peptones, and they may answer to all therapeutical indications:

Chapoteaut's Preserve.

This preserve is neutral and aromatic; it keeps well; it acquires the consistency of jelly at the temperature of 15° C., and melts at 35°. A tea spoonful represents double of its weight of beef meat. It may be taken either pure, or mixed with *bouillon*, with sweetened sugar, cakes, grapes. It may also be administered as an enema.

Chapoteaut's Wine.

This wine contains for each wine glass full 10 grammes of beef meat. It has a very agreeable taste is an excellent nourishment, and well likod by the patients. The dose is of one or two wine glass fulls before meals.

PRINCIPAL INDICATIONS—Anæmia, Dyspepsia, Cachexia, General Debility, Atony of the Stomach and Bowels, Convalescences, Alimentation of wet nurses, of children of old men, and of diabetic and phthisical people.

Syrop of Iodined Horse Radish,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The inocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 table spoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

Advantages of the Soluble Phosphateof Lime.

DELERAS, DRUGGIST and DOCTOR in SCIENCES.

1st. Solution and syrup containing 20 centigrams of the salt of iron in each tablespoon u..

2d. They are colorless preparations without taste or smell of iron; they have no action on the teeth.

3d They do not cause constipation, on account of a small quantity of sulphate of soda, which is produced during the preparation of this salt, without causing any influence on the savour of the medicament.

4th. They combine iron with phosphoric acid, the two principal elements of the bones and blood—a circumstance, which is of a great influence on digestion and respiration.

5th. The salt is not precipitated by the gastric juice, consequently it is immediately digested and assimulated and always well borne by the most delicate persons, whose stomachs cannot tolerate other ferruginous preparations.

Depot No. 8 Vivenne street, Paris.

For sale in all Drug Stores.

DUSART'S SYRUP

OF

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physicological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASESOF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

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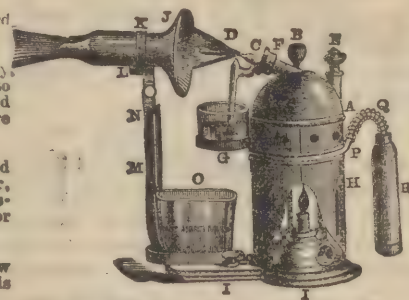
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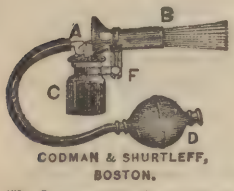
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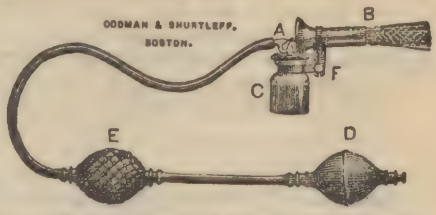
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TO THE MEDICAL PROFESSION.

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FORMULA.—CELERINA is the *isolated*, active *nerve-toning* principle of Celery, Coca and Viburnum, *combined* in a pleasant *fluid* form.

DOSE.—One or two teaspoonfuls *three* or *more* times a day, as indicated.

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CELERINA is *the* Nerve Tonic *sans pariel.* It *refreshes the tired brain*, and imparts tone and vigor to the entire nervous system; therefore, it is of the *utmost value* in Nervous Exhaustion, Sexual Debility, Paralysis, Dysmenorrhœa, Spermatorrhœa, Hysteria, Chorea, Weakness of old age, and *all* LANGUID conditions of the system.

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I frequently prescribe CELERINA when I want to use a reliable compound of celery and coca, and the prescription has given me satisfaction in its results as a Nerve-Tonic in many cases.

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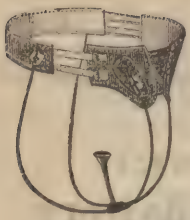
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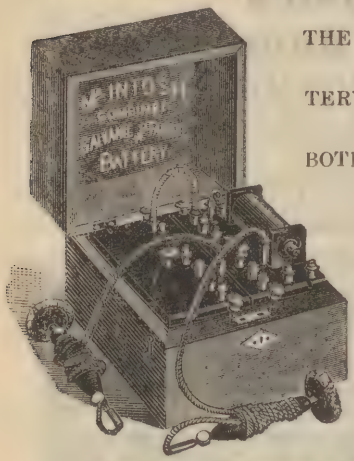
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In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

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FORTY-SECOND SESSION, 1882-83.

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CHARLES INSLEE PARDEE, M. D., Dean of the Faculty; Professor of Otology; Surgeon to the Manhattan Eye and Ear Hospital.

JOHN C. DRAPER, M. D., LL. D., Professor of Chemistry.

ALFRED L. LOOMIS, M. D., Professor of Pathology and Practice of Medicine; Visiting Physician to Bellevue Hospital.

WM. DARLING, M. D., LL.D., F.R.C.S, Professor of General and Descriptive Anatomy.

WILLIAM H. THOMSON, M. D., Professor of Materia Medica, Therapeutics and Diseases of the Nervous System; Visiting Physician to Bellevue Hospital.

J. W. S. ARNOLD, M. D., Professor of Physiology and Histology.

J. WILLISTON WRIGHT, M. D., Professor of Surgery; Visiting Surgeon to Bellevue Hospital.

WM. M. POLK, M. D., Professor of Obstetrics and the Diseases of Women and Children; Gynæcologist to Bellevue Hospital.

LEWIS A. STIMSON, M. D., Professor of Surgical Pathology; Surgeon to Bellevue Hospital; Curator to Bellevue Hospital.

FANEUIL D. WEISSE, M. D, Professor of Practical and Surgical Anatomy; Surgeon to Workhouse Hospital, B. I.

STEPHEN SMITH, M. D., Professor of Clinical Surgery; Surgeon to Bellevue Hospital.

A. E. MACDONALD, LL.B., M. D., Professor of Medical Jurisprudence and Diseases of the Mind; Medical Superintendent of the New York City Asylum for the Insane.

R. A. WITTHAUS, M. D., Professor of Physiological Chemistry.

HERMAN KNAPP, M. D., Professor of Ophthalmology: Surgeon to the Ophthalmic Institute.

AMBROSE L. RANNEY, M. D., Adjunct Professor of Anatomy.

JOSEPH E. WINTERS, M. D., Demonstrator of Anatomy.

THE PRELIMINARY SESSION will begin on Wednesday, September 20, 1882, and end October 4, 1882. It will be conducted on the same plan as the Regular Winter Session.

THE REGULAR WINTER SESSION will begin October 4, 1882, and end about the middle of March, 1883. The Plan of Instruction consists of Didactic and Clinical Lectures, recitations and Laboratory work in all subjects in which it is practicable To put the laboratories on a proper footing a new building has been erected at an expense of thirty thousand dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, Materia Medica, Operatic Surgery and Gynæcology.

Two to five Didactic lectures and two or more Clinical lectures will be given each day by members of the Faculty. In addition to the ordinary clinics, *special clinical instruction*, WITHOUT ADDITIONAL EXPENSE will be given to the candidates for graduation during the latter part of the Regular Session. For this purpose the candidates will be divided into sections of twenty-five members each. All who desire to avail themselves of this valuable privilege must give in their names and pay their examination fee of $30 to the Dean during the first week in November At these special clinics students will have excellent opportunities to make and verify diagnoses, and watch the effects of treatment. They will be held in the Wards of the Hospitals at the Public and College Dispensaries.

Each of the seven professors of the Regular Faculty will conduct a recitation on his subject one evening each week. Students are thus enabled to make up for lost lectures and prepare themselves properly for their final examinations without additional expense.

THE SPRING SESSION will begin about the middle of March and end the last week in May. The daily Clinics and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty.

It is supplementary to the Regular Winter Session. Nine months of continued instructions are thus secured to all students of the University who desire a thorough course.

FEES.

For course of Lectures	$140 00
Matriculation	5 00
Demonstrator's Fee, including material for dissection	10 00
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WILLARD PARKER, M. D., Emeritus Professor of the Principles and Practice of Surgery.

JOHN C. DALTON, M. D., Professor of Physiology and Hygiene.

THOMAS M. MARKOE, M. D., Professor of Surgery.

T. GAILARD THOMAS, M. D., Professor of Clinical Gynæcology.

JOHN T. METCALF, M. D., Emeritus Professor of Clinical Medicine.

HENRY B. SANDS, M. D., Professor of the Practice of Surgery.

JAMES W. McLANE, M. D., Professor of Obstetrics, of Gynæcology, and of the Diseases of Children

THOMAS T. SABINE, M. D., Professor of Anatomy.

CHARLES F. CHANDLER, Ph. D., Professor of Chemistry and Medical Jurisprudence.

EDWARD CURTIS, M. D., Professor of Materia Medica and Therapeutics.

FRANCIS DELAFIELD, M. D., Adjunct Professor of Pathology and Practical Medicine.

JOHN G. CURTIS, M. D., Adjunct Professor of Physiology and Hygiene; Secretary of the Faculty.

WM. DETMOLD, M. D., Emeritus Professor of Military and Clinical Surgery.

WILLIAM H. DRAPER, M. D., Professor of Clinical Medicine.

CORNELIUS R. AGNEW, M. D., Clinical Professor of Diseases of the Eye and Ear.

ABRAHAM JACOBI, M. D., Clinical Professor of Diseases of Children.

FESSENDEN N. OTIS, M. D., Clinical Professor of Venereal Diseases.

EDWARD C. SEGUIN, M. D., Clinical Professor of Diseases of the Mind and Nervous System.

GEO. M. LEFFERTS, M. D., Clinical Professor of Laryngoscopy and Diseases of the Throat.

WILLIAM T. BULL, M. D., Demonstrator of Anatomy.

GEORGE HENRY FOX, M. D., Clinical Professor of Diseases of the Skin.

WILLIAM S HALSTEAD, M. D., First Assistant Demonstrator of Anatomy.

FRANCIS R. MARKOE, M. D., Second Assistant Demonstrator of Anatomy

T. MITCHELL PRUDDEN, M. D., Director of the Physiological and Pathological Laboratory of the Alumni Association.

THE COLLEGIATE YEAR consists of One Session, attendance upon which is required for graduation. The Session for 1882-83 begins October 2d and continues until May, with short vacations at Thanksgiving and at Christmas.

TUITION is by the following method:

I. DIDACTIC LECTURES—During the Session from two to six lectures are given daily by the Faculty. Attendance obligatory.

II. CLINICAL TEACHING—Ten Clinics covering all departments of Medicine and Surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the large City Hospitals and Dispensaries (such as the Bellevue, Charity, New York and Roosevelt Hospitals, the New York Eye and Ear Infirmary, The Woman's Hospital, etc.,) as a regular feature of the College curriculum. Attendance optional.

III. RECITATIONS are held daily. Attendance optional.

IV. PERSONAL INSTRUCTION—Personal instruction is given in *Practical Anatomy, Experimental Physiology, Operative Surgery, Minor Surgery, Physical Diagnosis, Otology, Laryngoscopy, in Normal and Pathological Histology and the examination of the Urine.* Attendance optional, except upon Practical Anatomy.

EXPENSES—The *necessary* expenses are a yearly matriculation fee ($5), the fees for the lectures of the Session, $20 for the course on each branch, or $140 for the entire curriculum), the Practical Anatomy fee ($10 and a small charge for material), and a Graduation Fee of $30. The GRADUATING COURSE requires three years' study, with a preceptor (including the time spent in attendance at the College), attendance upon two full courses of lectures and upon one course of Practical Anatomy. Remissions and reductions of lecture fees are made to graduates and students who have already attended two full courses. *All fees are payable in advance.* Board can be had for from $5 to $9 a week, and the Clerk of the College will aid students in obtaining it.

HOSPITAL APPOINTMENTS—Four appointments a year upon the House Staff of Bellevue Hospital are awarded by the Faculty, after competitive examination in the College. Public competitive examinations, by the Hospital Authorities are open to Graduates of this College for similar positions at numerous other Hospitals.

For the Annual Catalogue and Announcement, or further information, address JOHN G. CURTIS, M. D., Secretary of the Faculty, College of Physicians and Surgeons, corner of Twenty-Third Street and Fourth Avenue, New York.

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Soluble Hypodermic Tablets.

We have recently given much attention to the preparation of Soluble Compressed Tablets to be used in hypodermic medication. This idea was brought to the notice of the medical profession by H. Augustus Wilson, M. D., of this city, in a paper read before the Philadelphia County Medical Society. His views were based upon carefully made experiments, and were received with much interest. At his instance, we undertook to prepare in this manner a number of combinations, which have upon trial proved eminently satisfactory. We therefore feel warranted in offering these articles to the profession as superior in several respects to all other forms for hypodermic purposes.

An extensive experience of many years in the manufacture of compressed powders (or pills), and the precision and accuracy of our mechanical appliances, enable us to make these articles with a degree of perfection, not attainable in any other way, or by any other process. The exact amount specified of each drug is thoroughly incorporated and distributed throughout every tablet. In water, at ordinary temperatures, a perfect solution may be made in from thirty to sixty seconds.

No extraneous material is employed, except the Sodium Sulphate, and this only in such proportions as to facilitate solution.

CAUTION—The dose of Morphia for hypodermic use varies from 1-12 to ½ grain. We would suggest to the profession the necessity for caution. The large doses sometimes recommended—½, ⅔ and even 1 grain—are unsafe for the first trial, unless the conditions requiring the injection be exceptional, *In commencing, it should not exceed one-third of that ordinarily administered internally.*

DIRECTIONS— The syringe is charged with about twenty minims of water, which is poured into a teaspoon or other convenient receptacle; the pellet being dropped in, is crushed with the end of the syringe, to which the needle fits, and after all the lumps are broken the solution is drawn up and forced out three or four times, when usually the whole mass will be entirely dissolved and ready for use.

If warm water be used or the spoon be heated over a lamp or gas jet, a perfect solution is effected in a moment. The tablets may be readily powdered with the blade of a knife, and a solution is even more speedily made in this way.

The following formulæ and combinations embrace all those in general request. Others will be added as the demands of the profession warrant their manufacture.

We claim for our Hypodermic Tablets:

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Ready and entire solubility,
Perfect preservation of the drug.

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" 16	Strychniæ Sulphas 1-60 grain. Sodæ Sulphas 1-4 grain.	2 00	
" 17	Strychniæ Sulphas 1-100 grain. Sodæ Sulphas 1-4 grain.	2 00	
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MEDICAL NOTES.

Journal de Micrographie, April 4th, 1882, p. 193.

THE TREATMENT OF PHTHISIS PULMONALIS BY THE PEPTONES.

By DR. G. PELLETAN.

Mme. A. G., gentlewomen; resident of Paris, *Rue Marseilles, No.* 10, aged 24 years, complexion dark, pale, bilious temperment, resembling a native of the South of France—although of English parentage; resident in France from early youth. Her father, and one sister, died from phthisis.

Taken with cough about two years since, but paid no attention to it, until within the past six months.

She has been treated for some laryngeal trouble.

For some time past has been the subject of frequent lancinating pains in chest; loss of appetite, notwithstanding repeated purgings, loss of flesh considerable. A friend who sees her daily remarks that at each visit she notices progressive emaciation; a few days since, alarmed at the great change, a physician was called in, who, after careful examination, ordered syrup of atropia and pills containing creosote—and insisted on Mrs. G's paying immediate attention to her condition.

January 9. The patient, in great alarm, sent for me at once; she declares herself consumptive—and lost.

Cough is not very frequent, but sweating profuse, and exhausting, and increased by the debility of the patient, requiring her to remain a greater part of the day in bed, covered up, and absolutely in a *steam bath.* Catamenia appeared, and only lasted for *two* hours, at last period. Appetite gone, features pinched, skin hot, cough only slight. Sputa mummular; acute pain complained of under right clavicle. Auscultation and percussion, reveal the presence of tubercles at summit of both lungs, with a point of softening, and parenchymatous inflammation on right side.

Discontinued atropine, which produced colics, also the creosote which was very repugnant to her and advised her to leave off the *Enghien* water and milk which she was taking every morning.

Ordered two teaspoonfuls of Chapoteaut's *conserve* of *peptones*, twice a day: two wine-glasses of wine of peptone after meals; blister under right clavicle.

January 11. Patient very much distressed, blister caused a great deal of pain, crying at intervals—ordering me away.

January 13. Excitement greatly diminished, pain under right clavicle relieved; some colic, accompanied by loose stools; abdomen distended and painful. Recognized a marked enlargement of liver, which is readily felt below the ribs; complains of tenderness and pain at this point.

Continued peptones; poultices over abdomen, and starch enemas, with eight drops of Sydenham's laudanum, if diarrhœa continued.

January 19. Condition about the same, though sweating notably less; no improvement in appetite; tongue coated; pain over liver; great weakness.

Continued peptones—slight purgative ordered—to be followed by *ferri protochloride*, and wine of cinchona after meals.

January 25. Marked improvement in general condition—sweating much diminished; strength returning with improved appetite.

Unfortunately our patient was exceedingly imprudent; went to a ball; exposed herself to taking cold on returning; eat freely of crawfish bisque and other highly seasoned dishes.

Treatment Continued.

February 1. General condition satisfactory; appetite good; strength much improved; sweating greatly lessened—catamenia appeared and lasted three days; emaciation no longer increasing—complains, however, of colic, and some diarrhœa, which she refers to the conserve of peptone, but which I believe to be the result of her imprudence in diet mentioned above.

Suspend for the moment the *conserve*, replace it by the peptone in powder, two wineglasses of wine of peptone a day. Iron and bark to be continued.

February 6. Appetite diminished; night sweats more abundant; persistent headache. Cough not very troublesome, except in awakening in morning; expectoration still of same nature.

Every morning to take a *teaspoonful* of peptone powder in a cup of broth; wine of peptone, iron and bark.

February 15. Improvement evident; cough and sweating nearly gone; appetite satisfactory. Frequent pain complained of in abdomen and loins. Patient mentions having suffered

some years ago from inflammation of bladder—with bloody urine.

Microscopical examination of urine reveals no change from a normal condition. Poultices over abdomen; treatment continued.

February 22. Improvement continues; cough and expectoration disappeared; scarcely any appreciable sweating; appetite capricious, but sufficient; colics still present. It is positive that there is no further emaciation; she has recovered her gayety of character. Auscultation confirms a great improvement in the pulmonary lesions recognized at first.

CONTINUE TREATMENT.

March 1. Catamenia reappeared; abundant; lasting four days.

Patient says her cough has entirely disappeared; gaining flesh; no more sweating, except at night, which she attributes to the fact that, being naturally chilly, she usually sleeps under six blankets. General condition may be regarded as excellent.

March 17. Improvement complete; Mme. G. only suffers from occasional attacks of colic. She may truly be said to be entirely cured; goes to the theatre, balls, dines out, etc., and has entirely forgotten that two months ago she had given herself up as lost.

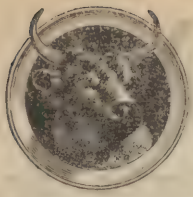
I prescribed, however, a rigid observance of her treatment, and to avoid all excesses.

March 22. The first part of my prescription was faithfully carried out; as to the second, I am doubtful about it.

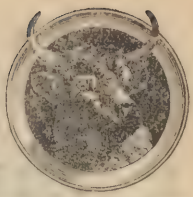
However this may be, respiration is normal in all respects; the patient has regained her weight in health, and with it, her accustomed activity.

She expresses herself as never feeling better than she now does, and intends returning to England.

DR. PELLETAN.



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BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescense, and in order to present the preparation in a powered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive elements and stimulating properties as forty-eight ounces of the best lean Beef.

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The favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent Physicians, who employed the preparation with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be taken by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

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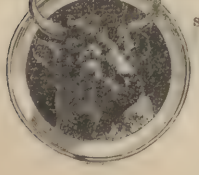
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We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.

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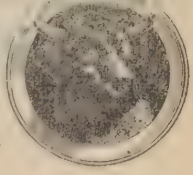


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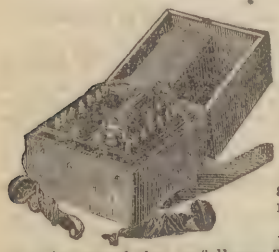
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

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a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water, and glycerine.



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Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ C16H34 and C16H32. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C7 H16 and C7 H14 respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

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291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

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218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly, JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere. I cannot too highly commend it as an application in various skin diseases.

Yours truly, JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

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and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

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are also kept on hand for medicinal purposes.

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The preparations of Iron are not always well borne by the stomach. In order to obviate such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

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2. *Conserve of Pepsic Peptone, Chapoteaut.*—This product is liquid, neutral, aromatic and easily kept. Each teaspoonful is equivalent to twice its weight of beef, and may be taken in broth, wine, preserves or syrup, or added to nutritive enemata.

3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

Especially indicated in the following affections: Anæmia, Dyspepsia, Cachexia, Debility, Atony of Stomach and Bowels, Convalescence, food for nurses, children and the aged and of phthisical and diabetic subjects.

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It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The innocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 table spoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

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This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3½ grains) of the Pyrophosphate of Iron and Soda to each tablespoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anæmia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which insures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

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—OF—

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DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

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The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

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Has been proved of the highest value in CONSUMPTION and all WASTING DISEASES, invariably producing IMMEDIATE INCREASE IN FLESH AND WEIGHT.

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Each Dose of two teaspoonfuls, equal to 120 drops, contains:

PURE COD LIVER OIL, 86 m. (drops)	SODA ..... 1-3 grains.
DISTILLED WATER.... 35 "	BORIC ACID ..... 1-4 "
SOLUBLE PANCREATIN, 5 grains.	HYOCHOLIC ACID ..... 1-20 "

DOSE—Two teaspoonfuls alone, or mixed with twice the quantity of Soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY," by H. C. BARTLETT, Ph. D., F.C.S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M.D.

In these Treatises the Chemistry and Physiology of the Digestion of the Fats and Oils is made clear, not only by the description of a large number of experiments scientifically conducted, but by cases in which the deductions are most fully borne out by the results.

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HYDRATED OIL,

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WATER AND OIL.

HYDROLEINE is readily tolerated by the most delicate stomachs, even when the pure Oil or the most carefully prepared Emulsions are rejected. The Oil is so treated with pancreatin soda, boric and hyocholic acids, that the process of digestion is partially effected before the organs of the patient are called upon to act upon it. Consequently it is readily assimilated. It will nourish and produce increase in weight in those cases where oils or fats, not so treated, are impossible to digest. In CONSUMPTION and other WASTING DISEASES, the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE, which may be discontinued when the usual average weight has been permanently regained.

The permanence and perfection of the emulsion, and the extreme solubility of the HYDRATED OIL, solely prepared and sold by us under the name of HYDROLEINE, is shown by its retaining its cream-like condition as long as the purest Cod-Liver Oil will retain its sweetness. Unlike the preparations mentioned, or simple Cod-Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

To brain workers of all classes, Hydrated Oil is invaluable, supplying, as it does, the true brain food.

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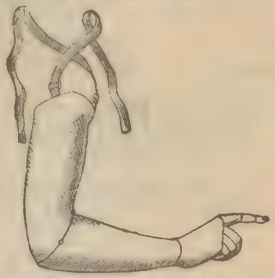
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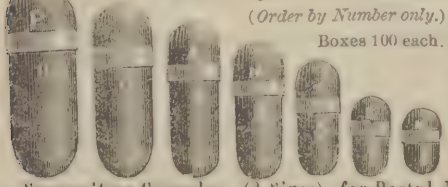
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COD LIVER OIL with SOLUBLE PHOSPHATE OF LIME;
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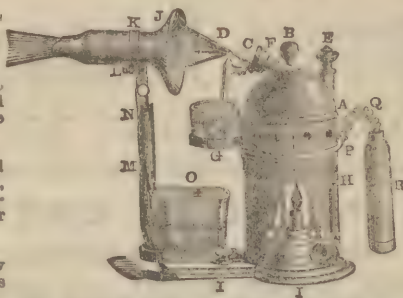
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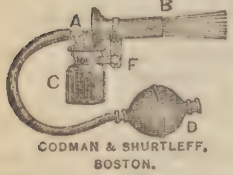
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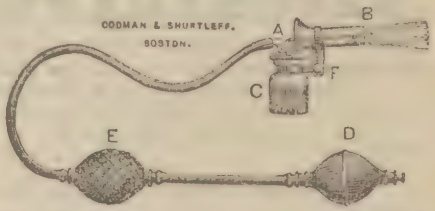
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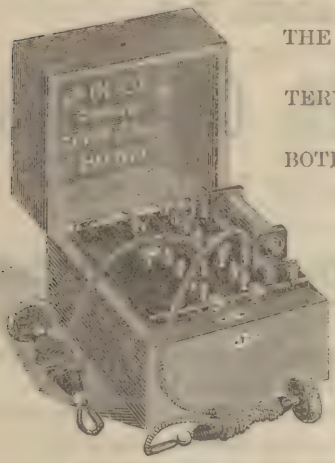
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1 f ℥	= 30. "	39° "	102°.2 "
1 ℥	= 31. "	40° "	104°. "
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As first-quality medicines only are used for the retail and prescription business, and no inferior drugs kept in stock, I can offer a full guarantee to Physicians who reside in the country that their orders will be filled to their full satisfaction, in regard to quality and charges.

☞ Parties in the country that may have Physicians' Prescriptions to fill, requiring medicines not obtainable there, will please address them to

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139 CANAL STREET,

Jan. '83-1y. **NEW ORLEANS,**

MALTINE.

A Concentrated Extract of Malted Wheat, Oats and Barley.

In its preparation the temperature employed does not exceed 150 deg. Fahr., thereby retaining all the nutritive and digestive agents unimpaired. Extracts of Malt are made from Barley alone, by the German Process, which directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids, and almost wholly destroying the starch digestive principle, Diastase.

LIST OF MALTINE PREPARATIONS.

MALTINE (Plain).
MALTINE with Hops.
MALTINE with Alteratives.
MALTINE with Beef and Iron.
MALTINE with Cod Liver Oil.
MALTINE with Cod Liver Oil and Pancreatine.
MALTINE with Hypophosphites.
MALTINE with Phosphorus Comp
MALTINE with Peptones.
MALTINE with Pepsin and Pancreatine.
MALTINE with Phosphates.
MALTINE with Phosphates Iron and Quinia.
MALTINE with Phosphates Iron, Quinia & Strych.
MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatine.
MALTO-YERBINE.
MALTO-VIBURNIN.

MEDICAL ENDORSEMENTS.

We append, *by permission*, a few names of the many prominent Members of the Medical Profession who are prescribing our Maltine Preparations:

J. K. BAUDUY, M. D., St. Louis, Mo., Physician to St. Vincent's Insane Asylum, and Prof. Nervous Diseases and Clinical Medicine, Missouri Medical College.

WM. PORTER, A. M., M. D., St. Louis, Mo.

E. S. DUNSTER, M. D., Ann Harbor, Mich., Prof. Obs. and Dis. Women and Children University and in Dartmouth College.

THOMAS H. ANDREWS, M. D., Philadelphia, Pa., Demonstrator of Anatomy, Jefferson Medical College.

B. F. HAMMEL, M. D., Philadelphia, Pa., Supt. Hospital of the University of Penn.

F. R. PALMER, M. D., Louisville, Ky., Prof. of Physiology and Personal Diagnosis, University of Louisville.

HUNTER McGUIRE, M. D., Richmond, Va., Prof. of Surgery, Med. Col. of Virginia.

F. A. MARDEN, M. D., Milwaukee, Wis., Supt. and Physician, Milwaukee County Hospital.

L. P. YANDELL, M. D., Louisville, Ky., Prof. of Clinical Medicine and Diseases of Children, University, Louisville.

JOHN. A. LARRABEE, M. D., Louisville, Ky., Prof. of Materia Medica and Therapeutics, and Clinical Lecturer on Diseases of Children in the Hospital College of Medicine.

R. OGDEN DOREMUS, M. D., L.L.D., New York, Prof. of Chemistry and Toxicology, Bellevue Hospital Medical College; Prof. of Chemistry and Physics, College of the City of New York.

WALTER S. HAINES, M. D., Chicago, Ill., Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

E. F. INGALLS, A. M., M. D., Chicago, Ill., Clinical Professor of Diseases of Chest and Throat, Woman's Medical College.

A. A. MEUNIER, M. D., Montreal, Canada, Prof. Victoria University.

H. F. BIGGAR, M. D., Prof. of Surgical and Medical Diseases of Women, Homœopathic Hospital College, Cleveland, Ohio.

DR. DOBELL, London, England, Consulting Physician to Royal Hospital for Diseases of the Chest.

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WM. ROBERTS, M.D., F.R.C.P., F.R.S., Manchester, England, Prof. of Clinical Medicine, Owens' College School of Medicine; Physician Manchester Royal Infirmary and Lunatic Hospital.

J. C. THOROWGOOD, M.D., F.R.C.P., London, England, Physician City of London Hospital for Chest Diseases; Physician West London Hospital.

W. C. PLAYFAIR, M.D., F.R.C.P., London, England, Prof. of Obstetric Medicine in King's College, and Physician for the Diseases of Women and Children to King's College Hospital.

W. H. WALSHE, M. D., F.R.C.P., Brompton, England, Consulting Physician Consumption Hospital, Brompton, and to the University College Hospital.

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MALTINE is prescribed by the most eminent members of the Medical Profession in the United States, Great Britain, India, China and the English Colonies, and is largely used at the principal Hospitals in preference to any of the Extracts of Malt.

☞ We will forward gratuitously a 1-lb. bottle of any of the above preparations to Physicians, who will pay the express charges. Send for our 28 page Pamphlet on Maltine for further particulars.

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182 Fulton St., New York.

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Antiseptics

LISTERINE

The combination of Medical agents, as presented by us under the name "LISTERINE," produces a remedy of peculiar antiseptic property, alike adapted to Surgery, Obstetrics, Gynecology, Laryngology, and all Zymotic or Febrile diseases, the best clinical testimony having established its safety internally, even in large doses, whilst its capability of dilution to varied strengths for local application demonstrates its power and scope.

FORMULA.—LISTERINE is the *essential Antiseptic* constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis in combination. Each *fluid drachm* also contains *two* grains of *refined* and *purified* Benzo-boracic Acid.

DOSE.—One teaspoonful *three* or *more* times a day (as indicated). As a local application to ulcers, wounds and abscesses, or as a gargle, mouth-wash, inhalant or injection, it can be used *ad libitum*, diluted as desired.

The therapeutic value of LISTERINE *has been thoroughly established by the most conservative and scientific element of the profession.*

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A LABORATORY STUDY OF LISTERINE:
(Being a tabular exhibit of its action upon fermentative processes),
BY **FRANK M. DEEMS, M. D., Ph. D.**
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THE BEST METHODS OF TREATING OPERATIVE WOUNDS:
BY **HENRY O. MARCY, A. M., M. D.**
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"*The Queen of Table Waters.*"—LONDON MEDICAL RECORD.

Natural Mineral Water

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Tenth Edit. "*Companion to Pharmacopœia.*',

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For Testimonials from *Professor F. Barker, O. Doremus, A. Flint, W. A. Hammond, Loomis, F. N. Otis, E. R. Peaslee, Sayre, Marion Sims, J. R. Wood (New York). etc.*

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SOLE AGENTS FOR THE UNITED STATES,

FREDK. DE BARY & CO, 41 and 43 Warren Street, New York.

It is most efficacious when taken in the morning fasting, warmed to a temperature not below 60°, or when an equal quantity of hot water is added to it.

FELLOWS' HYPO-PHOS-PHITES

Contains **THE ESSENTIAL ELEMENTS** to the Animal Organization—Potash and Lime;

The **OXYDIZING AGENTS**—Iron and Manganese;

The **TONICS**—Quinine and Strychnine;

And the **VITALIZING CONSTITUENT**—Phosporous,

Combined in the form of a Syrup, with *slight alkaline reaction.*

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION in America, and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

IN CASES where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

ITS ACTION IS PROMPT, stimulating the appetite, and the digestion, it promotes assimilation, and enters directly into the circulation with the food products.

THE PRESCRIBED DOSE produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of mental and nervous affections.

From its exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

Each Bottle of Fellows' Hypophosphites contains 128 doses.

Prepared by JAMES I. FELLOWS, Chemist,

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Circulars and Samples sent to Physicians on application.

☞ SPECIAL TO PHYSICIANS.—One large bottle containing 15 oz. (which usually sell for $1.50) will be sent upon receipt of Fifty Cents with the application, this will be applied to the prepayment of Expressage, and will afford an opportunity for a thorough test in Chronic cases of Debility and Nervousness. Express Charges prepaid upon all samples. For Sale by all Druggists.

PRACTICAL MEDICINE.

THERAPEUTIC HYGIENE.—TRIBUNE MEDICALE, p. 405.

OBSERVATIONS.

(Hôpital Beaujon)—Service of Professor LEFORT.

ABSCESS FROM CARIOUS BONE.

REPORTED BY M. JOUIN, INTERNE.

Jules B., aged 23 years; student in pharmacy, admitted 13th July, 1880; first floor, bed No. 26, subject of an abscess over left trochanter.

Antecedents: Scrofula on mother's side. Father died from tuberculosis. Subject himself, during infancy, was effected at different times with blepharitis, conjunctivitis, chronic otitis, glandular swellings, etc.

At age of 13 years, had an attack of chronic articular rheumatism. At 14 years, renewal of arthritic attacks, for which a change of air, by being sent to Neris, was recommended. Returned entirely cured.

This apparent cure from the change was not permanent. Soon he became the subject of cutaneous eruptions of great obstinacy.

At 21, there appeared for the first time, symptoms of the disease for which he was now admitted to Beaujon.—Attributed to it the effects of fatiguing walks; the various modes of treatment employed were followed by little or no improvement, *i. e.*, anti-scorbutic syrups, alterative infusions, syrups of the lacto-phosphate of lime, iodized syrup of horse radish.

December, 1879. After his practical studies in the school, reappearance of troubles.

At this time the swelling greatly increased, an abscess formed and discharged, leaving a fistulous opening, which fistula soon closed under carbolized injections.

The patient, again the subject of a renewed attack was admitted on July 13; a clinical examination revealed the following condition:

The left coxo-femoral articulation free from implication; movements natural and devoid of pain.

Our attention is called to distinct tumefaction of external portion of left thigh over the trochanter. At this point deep-seated fluctuation readily detected, pain on pressure, lancinating pains complained of, especially at night, although patient denies ever having suffered from syphilis.

Immediate and free opening of the sinuses practiced, after local anesthesia by ether spray. Bistoury touches denuded bone over trochanter, probably only superficial caries. Dissecting up of tissues quite extensive. Two drainage tubes introduced and dressings of alcohol and water applied.

Patient put on highly nutritious diet, and each day to take two glasses of Chapoteaut's wine of peptone.

July 15. Dressing renewed for first time, several small spiculæ of bone found in discharge; patient improving, suppuration quite abundant.

Same diet with Chopoteaut's wine of peptone.

July 20. From this day drainage tubes removed. Suppuration diminished, small bony spiculæ still found in the discharge. Instead of only two glasses of Chapoteaut's wine daily, quantity increased to three.

July 25. Local condition of patient satisfactory; general health excellent, and he is improving, daily. Same diet continued;—daily dressings of alchohol and water.

August 1. Suppuration nearly gone: General treatment continued.

August 10. Patient discharged well; general health vastly improved.

Observations of Dr. L. Dusarts.

Senile cachexia—with rapid return of health, strength and appetite under the use of Chapoteaut's wine of peptone.

M. Behier, æt. 80 years, being the subject of a chronic catarrhal affection, the long continuation of which has gradually developed a cachectic condition, with general debility. For the past three months locomotion has become impossible. Patient now entirely confined to bed, appetite destroyed, constipation obstinate. The small quantity of food taken is not retained: after one or two hours of uneasiness following eating, violent paroxyisms of coughing occur, which provoke vomiting.

The relatives of the patient being skeptical about the benefit of any medication in one of such advanced age, it was with extreme difficulty that I succeeded in making them try the effect of Chapoteaut's peptones.

I ordered their use in the form of the *liquid conserve*, in doses of *three* to *four* teaspoonfuls daily taken mixed in broth.

This species of food remaining so short a time in the stomach produces no fatigue of this organ and the paroxysms of cough are no longer followed by vomiting.

After the 4th day, appetite returned. In *one week* the patient was enabled to pass several hours a day out of bed. His stomach retained a few articles of food besides the peptones, milk, eggs, etc.

Encouraged by this marked and rapid improvement, the family continued the use of this mixed diet, peptones and ordinary food. His appetite continued good, and even frequently required checking (a frequent fact at this age); locomotion soon became easy, the attacks of coughing diminished in frequency, and were now no longer accompanied by vomiting.

Capillary Bronchitis in an old and Rickety Subject.

Rapid return of strength by the use of Chapoteaut's Peptones.

Mme. T., æt 65, Rachitic. Deformity of body, humpbacked, legs of different lengths.

For thirty years this old woman lived in her rooms. She was unable to walk, or ride, without suffering from palpitation and fainting. Her digestion was feeble and difficult, and the slightest attack of fever was productive of so much debility as to require *months* of the greatest care for recuperation.

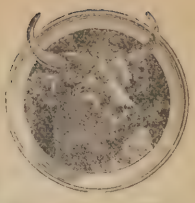
February 5. Was summoned to this lady whom I found suffering from attacks of suffocation, especially at nights, cough sub-crepitant rales found in both lungs, more abundant however, in left.

Appropriate treatment relieved gradually these urgent symptons, but further improvement was arrested by the extreme weakness of the patient and the inability of the stomach to take any kind of food.

I resorted at once to Chapoteaut's peptones, giving the conserve in doses of three teaspoonfuls per day, in a cup of warm broth. This preparation was taken with pleasure. In a short time eggs were taken, milk and the juice of beef. In two weeks I was enabled, by the aid of the peptones, so to improve the patient's strength as to permit her leaving her bed for several hours during the day. Her strength was so far improved that after the last attack of bronchitis the dyspnœa and palpitations returned only twice in three months, and only slight at each time. The use of the peptones was persisted in for two months, and always taken with pleasure.



BEEF PEPTONOIDS,



A CONCENTRATED POWDERED EXTRACT OF BEEF, PARTIALLY DIGESTED AND COMBINED WITH AN EQUAL PORTION OF GLUTEN.

We have pleasure in presenting, for the consideration of the Medical profession, "BEEF PEPTONOIDS." We consider this product the most valuable that ever emanated from our Laboratory, and we feel confident it will be welcomed by the Profession in all parts of the world.

BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescense, and in order to present the preparation in a powered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive elements and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of BEEF PEPTONOIDS contains more nutritive elements than ten pounds of any extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession.

Our machinery and process for the production of BEEF PEPTONOIDS are perfectly adapted to the *elimination* of all inert portions of the Beef, and the *retention* of all the nutritive constituents.

BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water or inert matter.*

The favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent Physicians, who employed the preparation with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be taken by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

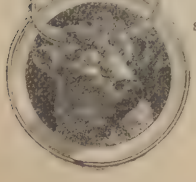
Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would in many cases, produce lasting injury and fatal results.

The use of BEEF PEPTONOIDS is indicated as follows:

Convalesence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulant, Per Rectum in all cases where the stomach cannot digest the food, and in debility resulting from any cause. Also, a valuable adjunct in all voyages and camp life.

We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.

For sale, in four ounce handsomely decorated tins, price $1 00. For the convenience of, and economy for, the Medical Profession, we also put up Beef Peptonoids in 16 oz. tins, which will be sent to any address, post paid, on receipt of $2 50.



Thanking the Profession for generous support in the past, we beg to remain,

Very Respectfully,

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E. SCHEFFER, . . . Louisville. Ky.

Manufactures by his Improved Method

SACCHARATED PEPSIN,

which has proven its superiority over other Pepsins by its stability and uniformity, and by its agreeable taste.

In digestive power it corresponds to the standard adopted by the Committee on the 6th Revision of the U. S. Pharmacopœia, which is as follows:

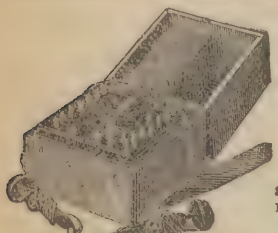
One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

CONCENTRATED DRY PEPSIN,

which possesses eight times the digestive power of the Saccharated; particularly recommended to manufacturers.

LIQUID PEPSIN,

a very active and palatable medicine, containing 4% of Saccharated Pepsin dissolved in acidulated water and glycerine.



DR. McINTOSH'S
Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

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SADDLE BAG

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IT HAS NO DRAWERS.

IT IS MADE OF ONE PIECE.



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"I write to say that I am more than pleased with the Elliott' Patent Medica Saddle Bags, and I have used them sufficiently long to give me a very high appreciation of their compactness, lightness and convenience of arrangement. These advantages they present in an eminent degree over the styles generally in use. Physicians in country and town practice will find them useful and invaluable. I remain, very respectfully,

Your obedient servant,

A. M. FOUNTLEROY, M. D.,
Ex-President Medical Society of Virginia.

More Elliott's Patent are Sold than all others Combined.

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Small " 24 " " " " - - - 11.00

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Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia, U. S. A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ $C_{16}H_{34}$ and $C_{16}H_{32}$. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C_7H_{16} and C_7H_{14} respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah. (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is about 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed. As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C. POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

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218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

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Physician to German Hospital.

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Each Dose of two teaspoonfuls, equal to 120 drops, contains:

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DISTILLED WATER.... 35 "	BORIC ACID ..... 1-4 "
SOLUBLE PANCREATIN, 5 grains.	HYOCHOLIC ACID ..... 1-20 "

DOSE—Two teaspoonfuls alone, or mixed with twice the quantity of Soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY." by H. C. BARTLETT, Ph. D., F.C S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M. D.

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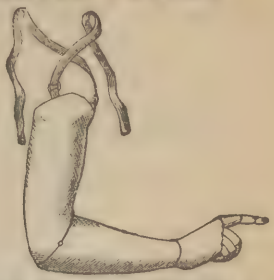
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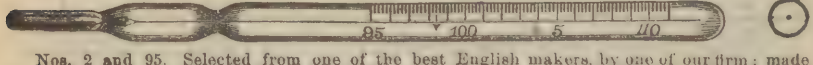
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—OF—

Pinus Canadensis

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MEDICAL PROPERTIES,

MUCOUS ASTRINGENT.

A Most Valuable Remedy in all Diseases of the Mucous Surfaces requiring an Astringent.

☞TO PHYSICIANS.—I will take pleasure in forwarding you free a sample bottle sufficient to test fully its merits. A trial only is sufficient to establish its medicinal value.

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As an Internal Remedy in Diarrhœa, Dysentery, Night-Sweats, Hemorrhage, or Profuse Expectoration. Mix one part of the extract with five of warm water; let it cool and take a teaspoonsful of the solution every three hours or oftener as the case may require.

For Leucorrhœa and other Vaginal Diseases, dissolve a tablespoonful or two in a pint of warm water and inject twice a day. In obstinate cases a stronger solution should be used.

For Protruding or Itching Piles mix one-fourth of glycerine and apply as often as convenient; Fissure of the Anus, Sores, Ulcers, Burns, or Scalds, the extract should be applied in its full strength.

For Catarrh, dissolve a teaspoonful or two of the extract and a teaspoonful of salt in a pint of warm water and inject into the nostrils with a nasal douche twice a day.

For Sore Throat, dissolve a tablespoonful of the extract in half pint warm water, let it cool, and apply as a gargle repeatedly during the day.

For Gonorrhœa or Gleet, mix one part of the extract with three of water, inject two or three times a day.

For Skin Diseases, the extract should be used in its full strength, locally, and in obstinate cases a warm bath, in which a pint of the extract has been dissolved, should be taken several times a week.

To avoid Staining of Linen the White P. C. should be used.

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Natural Uterine Supporter.

No instrument has ever been placed before the medical profession which has given such universal satisfaction. The combination is such that the Physician is able to meet every indication of Uterine Displacements. Falling Womb, Anteversion, Retroversion and Flexions are overcome by this instrument, where others fail; this is proven by the fact that since its introduction to the Profession it has come into more general use than all other instruments combined.

Among the many reasons which recommend this Supporter to the Physician is its self-adjusting qualities. The Physician after applying it need have no fear that he will be called in haste to remove or readjust it as is often the case with rings and various pessaries held in position by pressure against the vaginal wall, as the patient can remove it at will and replace it without assistance.

The Abdominal Supporter is a broad morroco leather belt with elastic straps to buckle around the hips, with concave front so shaped as to hold up the abdomen. The Uterine Support is a cup and stem made of highly polished hard rubber, very light and durable, shaped to fit the neck of the womb, with openings for the secretions to pass out, as shown by the cuts. Cups are made with extended lips to correct flexions and versions of the womb.

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Our Reduced Prices are to Physicians, $6.00; to Patients, $10.00.

Instruments sent by mail, at our risk, on receipt of price, or by Express, C. O. D. with the Express charges for returning the money added.

☞CAUTION—Owing to the great sale and popularity of our instrument various and base imitations are sold by unscrupulous parties. In order to get the genuine, it is best to order direct from us.

Dr. McINTOSH NATURAL UTERINE SUPPORTER CO.,

192 Jackson Street, Chicago, Ill.

Our valuable pamphlet "Some Practical Facts about Displacements of the Womb will be sent you free on application.

WARD'S

SOLUBLE MEDICATED BOUGIES AND SUPPOSITORIES.

The great advantage of *Soluble Medicated Gelatine* preparations in the treatment of diseases of mucous membranes has now become so well recognized that the demand is constantly increasing.

I make, for the use of physicians, the following:—

NASAL BOUGIES, URETHRAL BOUGIES, (*long and short*), AURAL AND RECTAL SUPPOSITORIES.

These can be made to order with any medication desired.

I keep constantly in stock two forms of *Urethral Bougies*, viz.: Regular No, 1 (short), containing Sulphate Zinc, Ext. Hydrastis, Morphia and Biborate Soda. Regular No. 2 (long), containing Sulph. Zinc, Ext. Hydrastis and Ext. Belladonna.

All the above preparations are guaranteed perfectly soluble.

For price list and further information, address **B. WARD,**

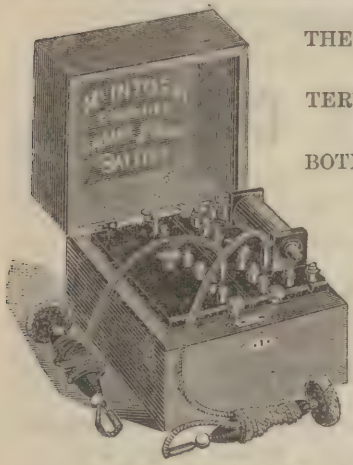
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BUY THE BEST!

Highly Recommended by the Medical Faculty of both America and Europe, and adopted by the United States Government. More of them Sold than any other Battery in the World.

McINTOSH COMBINED
Galvanic and Faradic Battery.



THE FIRST AND ONLY PORTABLE BATTERY EVER INVENTED WHICH GIVES BOTH THE GALVANIC AND FARADIC CURRENT;

THUS COMBINING TWO DISTINCT BATTERIES IN ONE CASE.

NO PHYSICIAN CAN AFFORD TO BE WITHOUT ONE.

This Celebrated Battery is constructed on an improved plan. The zincs and carbons are fastened to hard rubber plates in sections of six each, this manner of connecting brings the plates nearer together than in any other battery, thus giving less internal resistance. The rubber plate or cover will not warp or break, and is not affected by the fluid.

The cells are composed of one piece of hard rubber and are made in sections of six each with a drip-cup, thus one section can be handled, emptied and cleaned as easily and quickly as one cell.

The fluid cannot spill or run between the cells, and there is no danger of breaking as with glass cells. The drip-cup is to receive the elements when the battery is not in use. The Faradic coil is fastened to the hard rubber plate or cover.

The rubber plate to which the zincs and carbons are attached is securely fastened over the cells when not in use, making it impossible for any of the fluid to be spilled in carrying.

An extra large cell (with a zinc and carbon element) is added to the combined batteries for the purpose of producing the Faradic Current. This cell gives as much Power as is ever needed, and avoids exhausting the current from the Galvanic cells.

Our Batteries weigh less, occupy less space, give a current of greater intensity and quantity than any other Battery manufactured. For simplicity of construction they cannot be surpassed, and any person reading our directions will have no trouble in operating them.

This is the only Battery in which the zinc and carbon plates can be kept clean and always in order by simply rinsing them.

All the metal work is finely nickel plated and highly polished, and every part is put together so that it can be easily replaced by the operator.

We have the most complete line of electrodes yet offered to the profession. We also manufacture various styles of Table and Office Batteries, Bath Apparatus, &c., &c. Our manufacturing facilities are the largest of the kind in America, and we employ none but skilled mechanics, and men of scientific experience.

Our Illustrated Catalogue, a handsome book giving full description of all our goods, and other valuable information, sent free on application.

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192 *and* 194 *Jackson Street, Chicago, Ill.*

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158 Canal, and 1, 3, 5 & 7 Baronne St.,

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IMPORTER OF ENGLISH, GERMAN AND FRENCH

CHEMICALS AND ALKALOIDS.

CONSTANTLY ON HAND, A FULL ASSORTMENT OF

Trusses, Supporters, Elastic Stockings, Knee Caps, Rubber Bandages, Air Cushions, Air Pillows, Water Bags, Urinals, Ice Bags, Silver and Gum Catheters, Metal Sounds, Medicine Chests, Pocket Cases, Saddle Bags, &c.

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Are under the management of R. N. GIRLING. Special attention is paid to the careful selection of Drugs and Chemicals, and the utmost care is used to insure all preparations of the United States, and other pharmacopias being fully up to the standard as to PURITY AND STRENGTH, so that Physicians may have implicit confidence in all preparations emanating from our Laboratory.

We would especially recommend to the notice of Physicians the following preparations, manufactured by R. N. GIRLING, whose long experience in the practice of Pharmacy enables him to employ the best methods to insure thoroughly reliable products, the therapeutical value of which has been recognized by many of the profession:

FLUID EXTRACT OF ERGOT.

ERGOTINE, for Hypodermic uses, etc.

ELIXIR OF PEPSINE, } Each containing 15 Grains of Saccharated Pep-
WINE OF PEPSINE, } sine to the ½ ounce.

ALIMENTARY ELIXIR, } Prepared from Beef, Brandy and Ma-
ALIMENTARY ELIXIR, *Ferrated*, } laga Wine.

FERRATED ELIXIR OF CALISAYA BARK.

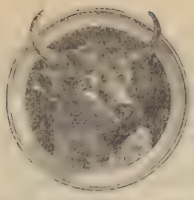
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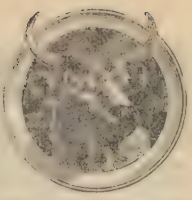
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BEEF PEPTONOIDS,



A CONCENTRATED POWDERED EXTRACT OF BEEF, PARTIALLY DIGESTED AND COMBINED WITH AN EQUAL PORTION OF GLUTEN.

We have pleasure in presenting, for the consideration of the Medical profession, "BEEF PEPTONOIDS." We consider this product the most valuable that ever emanated from our Laboratory, and we feel confident it will be welcomed by the Profession in all parts of the world.

BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescense, and in order to present the preparation in a powered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive elements and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of BEEF PEPTONOIDS contains more nutritive elements than ten pounds of an extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession

Our machinery and process for the production of BEEF PEPTONOIDS are perfectly adapted to the *elimination* of all inert portions of the Beef, and the *retention* of all the nutritive constituents.

BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water or inert matter.*

The favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent [illegible] who employed the preparation with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be used by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of Dr. D. W BLISS in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would in many cases, produce lasting injury and fatal results.

The use of BEEF PEPTONOIDS is indicated as follows:

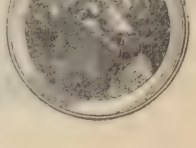
Convalescence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulant, Per Rectum in all cases where the stomach cannot digest the food, and in debility resulting from any cause. Also, a valuable adjunct in all voyages and camp life.

We will be pleased to have the Profession everywhere to attest our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also circulars fully explanatory.



Thanking the Profession for generous support in the past, we beg to remain,

Very Respectfully,



REED & CARNRICK,

182 FULTON ST. NEW YORK.

NESTLE'S MILK FOOD.

ITS PREPARATION AND VALUE FOR INFANTS.

Preparation.—For an infant under three months, mix one tablespoonful of the Food with ten of hot or cold water. Hold over the gas, lamp, or stove, with constant stirring, until it has boiled two or three minutes. Cool to about blood heat, and give in feeding bottle. For a child three to ten months old, mix in proportion of eight of water to one of Food. For a pap, in proportion of five of water to one of Food.

Value.—Containing only Milk, Wheaten Bread Crust and Sugar, this Food supplies all the elements necessary for complete alimentation, in the most easily assimilable form; the *Milk* furnishing Casein, Albumen, Hydrates of Carbon and Sugar of Milk, while the *Wheaten Bread Crust* supplies Nitrogen, and is especially rich in *Saline Matter*, particularly in potash salts, mainly in the form of phosphates, and Carbon is obtained from *Cane Sugar*. It makes pure blood, firm flesh, hard muscle, and tough bone. It is a sure preventive of Summer Complaint, and by its use the bowels can be kept in just the state desired. It is retained on the stomach, often, when everything else is rejected. The simplicity of its preparation and the uniformity obtainable are two points the value of which cannot be overestimated.

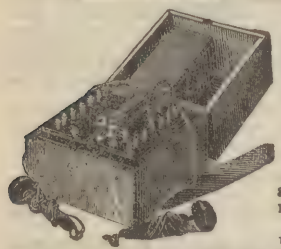
Particular Attention.—We do not claim that this Food will agree with *all* children. We do not think that any artificial food will ever be made which will do this, as nature sometimes fails, a mother's milk not agreeing with her own child. We only claim, what has been proved by its use for 15 years past, that it will agree with a *larger proportion* of children than any other artificial food.

A pamphlet, by Prof. H. Lebert, of Berlin, giving fuller particulars of the Food, sent to any address on application to

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18 College Place, New York City.

For a perfectly pure *CONDENSED MILK*, free from starch of any kind, try Nestle's.



DR. McINTOSH'S

Galvanic and Faradic Battery.

This celebrated Battery combines both the Galvanic and Faradic, or induced current which can be used separate or in combination.

Any strength and intensity desired can be obtained for use in Electro-therapeutics. This Battery is constructed on an improved plan, as follows: The zinc and carbon plates are arranged in couples securely clamped to hard rubber plates with thumb screws. These thumb screws are also used for binding posts. All the connections are positive and brought near together, thus lessening the internal resistance. The cells are made in sections of six, composed of one solid piece of hard vulcanized Rubber. By this arrangement a section can be handled, emptied, cleaned and refilled as easily and quickly as one cell. A hard Rubber drip cup is placed by the side of each section of cells, to receive the zincs and carbon plates when removed from the cells. The rubber plates, which hold the zinc and carbons, project over on one side enough to cover the cells, when the zinc and carbons are placed in the drip cups. The under side of this projection is covered with soft rubber, which is clamped over the sections, which makes the cells water tight, this alone recommends the Battery.

We claim superiority over all other batteries for the reason that by the improved plan of construction and close connections we gain more quantity and intensity of current. We combine all that is desirable in either a Galvanic or Faradic Battery, a combination never before attained. We furnish it with or without the Faradic coil. It weighs less than any other of the same power. It can be carried without spilling the fluid, thus being the only perfect portable Galvanic Battery made. We will be pleased to send circulars giving full information, price, &c., free on application.

McINTOSH GALVANIC BELT AND BATTERY CO.

Nos. 192 and 194 Jackson St., CHICAGO, ILL.

THE BEST

SADDLE BAG

IN THE MARKET.

IT HAS NO DRAWERS.
IT IS MADE OF ONE PIECE.



NICKEL PLATED FINISHINGS.
NO SEAMS OR STITCHES.

READ THE FOLLOWING ENDORSEMENT.

"I write to say that I am more than pleased with the Elliott' Patent Medica Saddle Bags, and I have used them sufficiently long to give me a very high appreciation of their compactness, lightness and convenience of arrangement. These advantages they present in an eminent degree over the styles generally in use. Physicians in country and town practice will find them useful and invaluable. I remain, very respectfully,

Your obedient servant,

A. M. FOUNTLEROY, M. D.,
Ex-President Medical Society of Virginia.

More Elliott's Patent are Sold than all others Combined.

ADOPTED BY THE U. S. GOVERNMENT.

Large Size, 30 Vials, Black or Light Leather, with 100 Labels - - - **$12.00**
Small " 24 " " " " - - - **11.00**

For Sale by all Druggists and Dealers in the United States.

Send for Descriptive Circular. Avoid Cheap Imitations. See that the name "Elliott is on each Bag.

A. A. MELLIER,

SOLE PROPRIETOR,

IMPORTER AND WHOLESALE DRUGGIST,

ST. LOUIS.

For Consumption and Wasting Diseases.

HYDROLEINE

Has been proved of the highest value in CONSUMPTION and all WASTING DISEASES, invariably producing INCREASE in FLESH and WEIGHT.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonsful, equal to 120 drops contains:

Pure Oil	**80 m. (drops.)**	**Soda**	**1-8 Grains.**
Distilled Water	**85 "**	**Boric Acid**	**1-4 "**
Soluble Pancreatin	**5 Grains.**	**Hyocholic Acid**	**1-20 "**

DOSE.—Two teaspoonsful alone, or mixed with twice the quantity of soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a Treatise on "THE DIGESTION AND ASSIMILATION OF FATS IN THE HUMAN BODY," by H. C. BARTLETT, Ph. D., F. C. S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a Treatise on "CONSUMPTION AND WASTING DISEASES," by G. OVEREND DREWRY, M. D.

In these Treatises the Chemistry and Physiology of the Digestion of the Fats and Oils is made clear, not only by the description of a large number of experiments scientifically conducted, but by cases in which the deductions are most fully borne out by the results.

☞ **Copies of these valuable works will be sent free on application.**

HYDRATED OIL

HYDROLEINE

WATER AND OIL.

HYDROLEINE is readily tolerated by the most delicate stomachs, even when the pure Oil or the most carefully prepared Emulsions are rejected. The Oil is so treated with pancreatin, soda, boric and hyocholic acids, that the process of digestion is partially effected before the organs of the patient are called upon to act upon it. Consequently it is readily assimilated. It will nourish and produce increase in weight in those cases where oils or fats, not so treated, are difficult or impossible to digest. In CONSUMPTION and other WASTING DISEASES, the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE, which may be discontinued when the usual average weight has been permanently regained.

The permanence and perfection of the emulsion, and the extreme solubility of the HYDRATED OIL, solely prepared and sold by us under the name of HYDROLEINE, is shown by its retaining its cream-like condition as long as the purest Cod Liver Oil will retain its sweetness. Unlike the preparations mentioned or simple Cod Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, as will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

To brain workers of all classes, Hydrated Oil is invaluable, supplying as it does, the true brain food.
Economical in use—certain in result. Tonic—Digestive and Highly Nutritive.

NEW PRINCIPLE FOR THE ASSIMILATION OF FAT

KIDDER & LAIRD, Agents for the United States.

Depot, 83 John St., NEW YORK.

Price at Retail, $1 per Bottle.

BE PARTICULAR TO GET THE GENUINE

KIDDER'S SACCHARATED PEPSINE.

TAKE NO OTHER.

OUR PEPSINE IS NOT SOLD IN BULK.

The only way you can get the genuine is in original packages, as follows:

ONLY STYLES OF KIDDER'S SACCHERATED PEPSINE,

One ounce, four ounce, and eight ounce oblong white flint-glass bottles, with our name (Kidder & Laird) blown in the bottles, and sixteen ounce round (plain) bottles, all having on them our metallic caps and lables. THESE ONLY STYLES, THE GENUINE, ARE SOLD AT 35 CENTS PER OUNCE, AND $4.50 PER POUND.

PROF. DOREMUS' TEST.

THE COLLEGE OF THE CITY OF NEW YORK, cor. Lexington Ave. and 23d Street.

This is to certify that I received from my son, Thomas C. Doremus, Jr., a sample of Pepsine obtained by him at Messrs. KIDDER & LAIRD'S, 83 John Street, New York, from a barrel containing 200 lbs. of the same. That I have made ten determinations of the solvent power of this Pepsine, with the following result: Ten grains of the Pepsine placed in an ounce of distilled water, with ten drops of hydrochloric acid, and kept at the temperature of the human body for six hours, with frequent agitation, dissolved 197.1 grains of coagulated albumen out of 200 grains.

Respectfully submitted. R. OGDEN DOREMUS, M.D., LL.D,
Prof. Chemistry and Physics, College City of New York,
and Prof. Chemistry and Toxicology, Bellevue Hosp. Med. Col.

TESTIMONIALS.

Kidder & Laird. LAKEPORT, CAL., Aug. 23d, 187[illegible].

Gentlemen: I have used the Kidder's Saccharated Pepsine in several cases of Catarrh of the Stomach, where all other Pepsines have failed. The Lactopeptine I cannot give to children at all, and find your Pepsine acts nicely. Yours, etc., P. H. THORNTON, M. D.

INDIANAPOLIS, IND., July 12th, 1878.

Kidder & Laird.

Gentlemen: Have given Kidder's Saccharated Pepsine in a number of cases of dyspepsia; also given it to the physicians in this locality, who were well pleased with the superior quality of it. Yours, etc.,

S. J. HILLMAN, M. D.

SOUTH BEND, IND., Oct. 22d, 1878.

Kidder & Laird.

Gentlemen: I have used Kidder's Saccharated Pepsine in some very aggravated cases of indigestion, and have found it equal to any Pepsine that I have ever used. Yours respectfully, O. P. BARBOUR, M. D.

Kidder & Laird. ANNAPOLIS, June 20th, 1878.

Gentlemen: Since the reception of your sample of Kidder's Saccharated Pepsine we have used no other. We consider it a first-class preparation. We have never heard anything to the contrary. We shall continue to dispense it unless well-founded objections are made, which we do not fear. We purchase from Messrs. Thomsen & Muth. Yours, etc,

J. F. PERKINS & BRO.

181 LEXINGTON ST., BALTIMORE, MD.

Kidder & Laird.

Gentlemen: Have used Kidder's Saccharated for the past year with entire satisfaction. I use no other, except specially preseribed. I obtain my supply from Messrs. W. H. Brown & Bro., or Messrs. Thomsen & Muth, Baltimore. Yours. etc.,

H. C. MOORE, M. D.

MALDEN, MASS., July 15th, 1878.

Kidder & Laird.

Gentlemen: We meant to have written to you before, to the effect that Kidder's Saccharated Pepsine was a complete success with some of the dyspeptics of this place; and it is highly recommended by the physicians, and they are prescribing it regularly to their patients.

Yours respectfully, M. E. JOSSELYN.

NO. BROOKFIELD, MASS., May 18th, 1877.

Kidder & Laird.

Gentlemen: I have tested the sample (chemically) of Pepsine you sent me, and find it to be superior to that I have been in the habit of prescribing (Hawley's).

Yours truly, L. A. NAN WAGNER, M. D.

ALLENVILLE, MO., May 28th, 1878.

Kidder & Laird.

Gentlemen: As you will remember sending me four ounces of your Saccharated Pepsine, please permit me to say in justice to yourselves, that I believe it to be the most efficacious of all the preparations of Pepsine now in use. I have used it in three well-defined cases of dyspepsia with success when the others had failed except to give slight relief. I shall use it in all cases of indigestion hereafter. Yours respectfully,

A. P. REED, M. D.

PORTSMOUTH, N. H., Aug. 19th, 1878.

Kidder & Laird.

Gentlemen: I have used the Kidder's Saccharated Pepsine, and have taken considerable trouble to test it and watch its action. I think it superior to any preparation I have ever used containing Pepsine—*not even excepting Lactopeptine.* Yours, etc.,

J. C. WHITTIER, M. D.

Messrs. Kidder & Laird. AMELIA, OHIO.

Gentlemen: The Kidder's Saccharated Pepsine sent to me was of an excellent quality, and gave general satisfaction, after which I ordered more of it, and have used nearly all of the second installment. Your Pepsine is not only *cheap* but it is one of the very *best* articles of Pepsine in the market. Very respectfully,

M. M. INGALLS, M. D.
Ex.-Pres. Nat'l E. M. M. Assoc.

CHICAGO, OHIO, June 26th, 1878.

Kidder & Laird.

Gentlemen: Kidder's Saccharated Pepsine answered a better purpose than any other preparation of the kind that I have ever used in my practice of over ten years. I intend to continue to use it.

Yours, etc., D. H. YOUNG, JR., M. D.

Kidder & Laird. IRONTON, OHIO, June 21st, 1878.

Gentlemen: Being a constant user of Pepsines, I took the sample you sent me of Kidder's Saccharated Pepsine, and I found it equal to any, and superior to a great many, of the preparations of Pepsine. I have tried most of the preparations in market. Yours, etc.,

O. ELLISON, M. D.

PHILA., PA., 2280 FRANKFORD AVE.

Kidder & Laird.

Gentlemen: Since the receipt and trial of your sample or Kidder's Saccharated Pepsine I have used four pounds of it, and come to the conclusion that it fully answers all the purposes that can be reasonably expected from the use of "Pepsine" equally as well as the highest priced articles, which I only keep on hand in case they are prescribed by other physicians. In my own practice I use your Pepsine exclusively.

Yours respectfully, FRED. PLEIBEL, M. D.

Kidder & Laird. NORFOLK, VA., Sept. 23d, 1878.

Gentlemen: The reports from the physicians who have had samples of your Pepsine is found in their continued use of it in their prescriptions on my file, and who have told me that it fulfills all that could be desired of a pure and unadulterated Pepsine. In my own practice I have carefully noted its effects; have placed it in comparison with Boudault's, Scheffer's and Hawley's; in each case, whether fancied or real, the disposition to nausea has been less out of your preparation than with any other. I shall continue to keep that, and that only, on my prescription counter.

Yours truly, J. W. THOMAS, JR.

CHATHAM, CANADA WEST, Nov. 2d, 1878.

Kidder & Laird.

Gentlemen: I find your Pepsine acts well in all the cases in which I have tried it. I have been in the habit of using almost all the different makes of Pepsine, French, English and American, as well as Lactopeptine and Inglavin, and find your Pepsine equal to any of them. Yours truly,

J. C. BRIGHT, M. D., M. C. P. & P. O.

We have over 5,000 letters from Physicians and Druggists endorsing and recommending KIDDER'S SACCHARATED PEPSINE. The quality is the best, and the price lowest in market

Samples and Circulars sent to Druggist or Physicians on application to

KIDDER & LAIRD, 83 JOHN STREET, N. Y

For Sale at all Wholesale and Retail Druggists.

REGISTERED COSMOLINE TRADE MARK.

Unguentum Petrolei

Prepared by E. F. Houghton & Co. Philadelphia, U.S.A.

Put up in 1 lb. Cans, 5 lb. Cans, 10 lb. Cans, 25 lb. Cans, 50 lb. Cans, 100 lb. Cans.

SAMPLES FURNISHED ON APPLICATION. The Post-Office Laws forbid anything of an oleaginous nature being sent through the mails.

In chemical composition, Cosmoline (Unguentum Petrolei) is an oleaginous hydrocarbon corresponding to the heavy petroleum oils, and containing a large amount of the paraffines and olefines of the formulæ $C_{16}H_{34}$ and $C_{16}H_{32}$. It contains but a small percentage of the paraffines and olefines, corresponding to the formulæ C_7H_{16} and C_7H_{14} respectively, and the offensive and irritating properties of the crude oil have been carefully removed. In the process of purification no acids, alkalies, or other chemicals are employed, and no injurious additions of any kind are made to the natural product. The result is a semi-solid, translucent substance, with a faint odor, and unctuous feel.

Cosmoline (Unguentum Petrolei) melts at about 100° Fah (38° Cent.); and boils at about 625° Fah. (329° Cent.); its specific gravity is abont 0.875 at 60° Fah.

As it contains no oxydizable or organic matter capable of change by putrefaction or fermentation, and is absolutely without affinity for moisture, it offers to the profession an admirable unguent, which can never decompose, ferment, or become rancid in any climate or temperature.

---

291 MADISON AVENUE, NEW YORK, February 26, 1878.

I have examined the preparations of Cosmoline as manufactured by E. F. Houghton & Co., Philadelphia, and believe them well adapted to the purposes for which they are designed As lubricants and as the bases of simple or medicated ointments, they have a decided advantage over the fixed oils and fatty substances in ordinary use, in that they do not become rancid, and do not acquire irritating qualities from atmospheric exposure.

ALFRED C POST, M. D., LL. D.,
Emeritus Professor of Clinical Surgery in the University of New York,
Visiting Surgeon to Presbyterian Hospital, etc.

---

218 SOUTH SIXTEENTH ST., PHILADELPHIA, July 7, 1880.

Messrs. E. F. HOUGHTON & Co.:

Gents—The petroleum product prepared by you and supplied to physicians under the name of Cosmoline (Unguentum Petrolei), was first brought to my notice while I was resident physician in the Pennsylvania Hospital, and it at once commended itself to me as a bland emollient, as an elegant substitute for carbon oil in burns and scalds, as a protective in excoriations and certain diseases of the skin, and as an excipient in the place of lard for applications to the eye and ear. For the last five years I have used the plain Cosmoline, both in hospital and in private practice, in Gynæcological and Obstetrical cases, with perfect satisfaction, and consider it much superior to Olive Oil, which is so generally used. Carbolated Cosmoline is a useful combination, but the rose-scented Cosmoline is, beyond all question, a work of art, which cannot be too highly commended. I have the honor to be

Very respectfully yours,

FRANK WOODBURY, M. D.
Physician to German Hospital.

Messrs. E. F. HOUGHTON & Co.: PHILADELPHIA, July 10, 1880.

I have for a number of years made extensive use of Cosmoline (Unguentum Petrolei) and consider it a most valuable article for surgical purposes. Either as a dressing by itself or as a vehicle for the application of medicaments, it is greatly superior to lard or other fatty matters, especially by reason of its non-liability to change by time or temperature.

Yours truly,

JOHN H. PACKARD, M. D.

Messrs. E. F. HOUGHTON & Co.: 1031 WALNUT STREET, PHILADELPHIA.

I have used extensively Cosmoline (Unguentum Petrolei) both in dispensary and private practice, with very great satisfaction. As a vehicle for making ointments it is invaluable, and far superior to lard, for the reason that it will not become rancid or undergo chemical change like the latter, when exposed to the atmosphere I cannot too highly commend it as an application in various skin diseases.

Yours truly,

JOHN V. SHOEMAKER, A M, M. D.
Physician to the Pennsylvania Free Dispensary for Skin Diseases.

Prepared by E. F. HOUGHTON & Co., 211 S. Front St., Philadelphia.

G. R. FINLAY & CO.,

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AND

WHOLESALE DRUGGISTS,

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PURE **DRUGS** FRESH

bought exclusively for CASH, and are prepared to fill all orders entrusted to our care with accuracy and dispatch, and at the lowest possible market rates.

We deal in none but

First Class Goods,

and all medicines sold by us are

GUARANTEED TO BE FRESH AND UNADULTERATED

The success of the physician often depends on the quality of the drug prescribed by him, and we believe our patrons will bear us out in the assertion that the quality of the goods we supply cannot be surpassed.

We are Agents for some of the LARGEST MANUFACTURING ESTABLISHMENTS (both of this country and Europe) on

CHEMICALS,

PHARMACISTS' PREPARATIONS,

SURGICAL INSTRUMENTS AND APPLIANCES.

and all orders will be filled with attention to furnishing such manufactures as are designated. A full stock of

Pure Liquors and Wines of all kinds

are also kept on hand for medicinal purposes.

Grimault & Co. Quinquina Ferruginous Wine.

The preparations of Iron are not always well borne by the stomach. In order to obviate such intolerance, it becomes necessary to combine them with Quinquina, but such a combination can only be usefully accomplished under two essential conditions: The first consists in depriving the Quinquina of all astringent principles which it contains and only preserving its tonic properties; the second, in choosing such a preparation of Iron not incompatible with the alkaloids of Quinquina. The Pyrophosphate of Iron and Soda is the only preparation which has the advantage of forming with the tonic principles of Quinquina, an irreproachable combination. It is the principal ingredient of the VIN DE QUINQUINA A FERRUGINEUX DE GRIMAULT ET CIE., which is a great deal superior to any other or similar preparation in its therapeutic virtues, as well as its clearness and agreeable taste, as it has been demonstrated by the majority of the physicians of Paris during the last twenty years.

The VIN DE QUINQUINA FERRUGINEUX DE GRIMAULT ET CIE. must be taken half an hour before each meal in the dose of a table spoonful for a grown person, and a desert spoonful for children.

Depot à Paris—8 rue Vivienne.

Pepsic Peptones, with Beef

OF CHAPOTEAUT, 1st CLASS PHARMACIST OF THE FACULTY OF PARIS.

These perfectly pure Peptones contain only pure beef meat well digested and rendered assimilable by pepsin, always officinal and regular, extracted from the stomach of the sheep, digesting with ease from 700 to 800 times their weight of fibrine, not found in commerce. They possess extraordinary power as food, and exercise on the whole economy extraordinary nutritive action. They must not be confounded with those peptones prepared from the stomachs of sheep or the pancreas of pigs, containing as much of substances produced by the digestion of the mucous membrane of the stomach as of beef. There are three varieties:

1. *Wine of Pepsic Peptones of Chapoteaut.*—Containing in each wineglassful the peptone from 10 grammes of beef (2½ drams). Taste agreeable, constituting an excellent food which sick persons and children take with pleasure. It should be taken on commencing meals. Dose, one to two wineglassfuls.

2. *Conserve of Pepsic Peptone, Chapoteaut.*—This product is liquid, neutral, aromatic and easily kept. Each teaspoonful is equivalent to twice its weight of beef, and may be taken in broth, wine, preserves or syrup, or added to nutritive enemata.

3. *Powder of Pepsic Peptone, Chapoteaut.*—This preparation, possessing only the real flavor of meat, presents the advantage of being easily taken in the first spoonful of soup. It is readily soluble in water, broth or wine. Each teaspoonful represents nearly 4 grammes (1 dram) of pure peptone, equal to 5 drams or more than half an ounce of beef, entirely digested and ready for assimilation. Each vial contains 30 grammes or nearly one ounce of peptone, equivalent to nearly half a pound of beef, sufficient to nourish an adult.

Especially indicated in the following affections: Anæmia, Dyspepsia, Cachexia, Debility, Atony of Stomach and Bowels, Convalescence, food for nurses, children and the aged and of phthisical and diabetic subjects.

Syrup of Horse Radish with Iodine,

PREPARED COLD BY GRIMAULT.

It is a good combination of Iodine with the juices of the antiscorbutic plants, water cresses, horse radish, cochlearia, and water trefoil. The innocuousness of this preparation on the stomach and bowels makes it preferable to those mixtures with iodide of potassium and iron, and is a very useful medicine for children, in the lymphatic cachexia and phthisis. The syrup of horse radish with iodine is used in Paris as a substitute for cod liver oil; it never causes any accident of intolerance. Each table spoonful represents 5½ centigrams of iodine. The daily dose for children is 1 table spoonful twice a day, morning and evening; for grown persons is from 2 to 4 tablespoonfuls a day. Depot No 8 Viviene street, Paris. For sale in all drug stores

Soluble Phosphate of Iron.

OR PYROPHOSPHATE OF IRON AND SODA.

DELERAS, DOCTOR AND SCIENTIST, PARIS.

This colorless preparation, with no taste or flavor of iron, contains 20 centigrammes (3⅓ grains) of the Pyrophosphate of Iron and Soda to each tablespoonful. The intimate union of these essential elements of bone and blood, Iron and Phosphorus in a soluble state, makes the best chalybeate in Chlorosis, Anemia, Scrofula, Lymphangitis, Convalescence, etc. It does not precipitate in the fluids of the stomach, which insures rapid assimilation, never producing constipation, owing to the presence of a small quantity of the Sulphate of Soda, produced during its preparation.

DUSART'S SYRUP

—OF—

LACTO-PHOSPHATE of LIME,

AN ALIMENT AS WELL AS A MEDICAMENT,

The properties of which are scientifically founded on physiological experiments, has now received the sanction of several years' successful trial by the British medical profession as producing durable reconstituent effects IN ALL CASES OF CACHEXIA OR ADYNAMIA, when nutrition has been impaired by acute or chronic complaints.

LACTO-PHOSPHATE of LIME is PHOSPHATE OF LIME—the natural restorer of muscular fibre as well as bones—made assimilable by the action of its natural solvent, lactic acid.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

DUSART'S SYRUP of LACTO-PHOSPHATE of LIME and IRON is a ferruginous medicament specially invaluable for the above cases when complicated with anæmia.

DOSES—For Adults, 3 to 6 Tablespoonfuls a day, for Children 3 to 6 Dessertspoonfuls

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MIDY'S SANTAL.

The essential Oil of Santal is employed with success in the place of Copaiba and Cubebs. It is harmless even if taken in large doses. At the end of 48 hours a complete relief is felt by the patients, the running being soon reduced to a simple serous secretion.

Its use never causes indigestions, eructations or diarrhœas. The urine does not take any odour. In inflammation of the bladder, it acts with rapidity, and suppresses in one or two days the discharge of blood; it is very useful in chronic catarrh.

The Santal of Midy is prepared in small round, transparent capsules, it is chemically pure, and obtained by or from the distillation of Citrine Santal of Bombay.

DOSE—From 10 to 12 Capsules per day, decreasing progressively in proportion with the diminishing discharge.

Depot, Paris, at Midy's Drug store, No. 113 Faubourg, St. Honore Street.

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CREAM of SUB-NITRATE of BISMUTH,

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Under this form Sub-Nitrate of Bismuth combines intimately with water and is immediately absorbed, owing to the minute division of the drug. To this is due its great efficacy in diarrhœas and dysentery, affections of the stomach, gastritis, gastralgia, colic and ulceration of the intestines. It is the most unobjectionable and the surest remedy for combatting the diarrhœa which is the prodrome of cholera in times of epidemic.

TO PHYSICIANS.

LISTERINE

FORMULA.—LISTERINE is the *essential Antiseptic* constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis in combination. Each *fluid drachm* also contains *two* grains of *refined* and *purified* Benzo-boracic Acid.

DOSE.—One teaspoonful *three* or *more* times a day (as indicated). As a local application to ulcers, wounds and abscesses, or as a gargle, mouth-wash, inhalant or injection, it can be used *ad libitum*, diluted as desired.

LISTERINE is a **Powerful, Safe, and Pleasant** Antiseptic. The beneficial results following its use in Phthisis, Diphtheria, Catarrh, Dysentery, Scarlatina, Erysipelas, Small pox, Typhoid and Malarial Fevers, etc., proves it to be A RESTORATIVE ANTISEPTIC *of the very highest order of merit.* It is the most efficient agent to disinfect the hands after surgical or gynecological operations, and is **the best** injection in Leucorrhœa, Gonorrhœa, etc., used in the proportion of two or three parts water and one part LISTERINE.

FULL CLINICAL NOTES from the following and many other well-known physicians sent upon request.

PHILIP S. WALES,
Surgeon General United States Navy.

CHRISTOPHER JOHNSTON, M.D.,
Emeritus Professor of Surgery, University of Maryland, etc., etc.

MONTROSE A. PALLEN, M.D., LL.D.,
Professor of Gynecology, University of City of New York, and Surgeon to the Maternity Hospital, etc.

HENRY O. MARCY, M.D.,
Boston.

W. W. DAWSON, M.D.,
Professor of Surgery, Medical College of Ohio, etc., etc.

H. P. C. WILSON, M.D.,
Ex-President Medical and Chirurgical Faculty, Maryland, and Baltimore Academy of Medicine; Vice-President American Gynecological Society.

JOSEPH TABER JOHNSON, A.M., M.D.,
Professor of Obstetrics and Diseases of Women and Infants, Medical Department University of Georgetown, D.C.

EDWARD W. JENKS, M.D., LL.D.,
Professor of Diseases of Women, and of Clinical Gynecology, Chicago Medical College.

R. A. KINLOCH, M.D.,
Professor of Surgery and Clinical Surgery, Medical College of the State of South Carolina.

OSCAR J. COSKERY, M.D.,
Professor of Surgery, College of Physicians and Surgeons, Baltimore.

DUNCAN EVE, M.D.,
Professor of Surgery, Medical Department University of Tennessee.

E. B. STEVENS, A.M., M.D.,
President of the Obstetrical Society of Cincinnati.

E. H. GREGORY, M.D.,
Professor of Surgery, St. Louis Medical College, Surgeon to St. Louis Hospital, etc.

T. F. PREWITT, M.D.,
DEAN, *Professor of Surgery, Missouri Medical College, Surgeon to St. John's Hospital, etc.*

P. V. SCHENCK, M.D.,
Surgeon in charge St. Louis Female Hospital.

NATHAN S. LINCOLN, M.D.,
Emeritus Professor of Surgery, Medical Department Columbia University, Washington, D.C.

FESSENDEN N. OTIS, M.D.,
Clinical Professor of Venereal Diseases, College of Physicians and Surgeons, New York.

CHARLES T. PARKES, M.D.,
Professor of Anatomy, Rush Medical College, Chicago, Ill.

PERCY NORCOP, M.D., F.R.C.S.,
Formerly Surgical Dresser to Professor Lister.

E. FLETCHER INGALS, A.M., M.D.,
Professor of Diseases of the Chest and Physical Diagnosis, Rush Medical College; Women's Medical College, etc., etc., Chicago, Ill.

A. F. ERICH, M.D.,
Professor of Diseases of Women, College of Physicians and Surgeons, Baltimore.

J. W. UNDERHILL, M.D.,
Professor of Obstetrics, Cincinnati College of Medicine and Surgery.

THOMAS F. WOOD, M.D.,
President of the Medical Society of North Carolina, Wilmington, N.C.

JAMES M. HOLLOWAY, M.D.,
Professor of Surgery, Hospital College of Medicine, and Kentucky School of Medicine, Louisville, Ky.

HARVEY L. BIRD, A.M., M.D.,
PRESIDENT, *Professor of Obstetrics and Diseases of Women and Children, Baltimore Medical College.*

A. M. OWEN, M.D.,
Professor of Surgery, Evansville Medical College.

GEO. J. ENGELMANN, M.D.,
Professor of Obstetrics in the Post-Graduate School of the Missouri Medical College.

F. J. LUTZ, A.M., M.D.,
Surgeon to Alexian Brothers Hospital; Physician to Misericordia Asylum for the Insane and Nervous.

E. S. LEMOINE, M.D.,
Physician to St. Luke's Hospital, St. Louis.

WM. PORTER, A.M., M.D.,
St. Louis.

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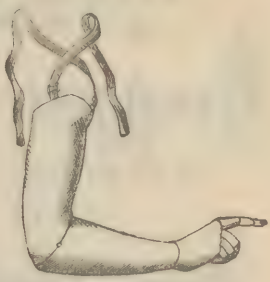
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Have all the Motions of the Natural Ones.

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A large assortment of Trusses, Abdominal Supporters, Shonlder-Braces, Elastic Stockings, Crutches, &c.. at reasonable prices and the best workmanship. I will attend to the fitting of each instrument and guarantee satisfaction. A lady will attend to lady customers.

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"I do not hesitate to say that I have been agreeably surprised at the facility and ease with which Mr. J. L. Gubernator uses an Artificial Leg made by Mr McDermott of this city, and said to be on the Bly patent. Having amputated Mr. Gubernator's limb, I feel interested and pleased with the result. Respectfully,

A. W. SMYTH, M. D.

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Importer of Swedish Leeches,
Importer of English Solid Extracts,
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The extensive Dispensing Department and complete Laboratory connected with my Wholesale Business enables me to give that careful attention to Physicians' Orders necessary to ensure filling them satisfactorily.

Having always exercised the greatest care in the selection of the crude materials employed, and making all pharmaceutical preparations of standard strength, in strict accordance with established and recognized formulas, I have earned and am entitled to the confidence of the profession.

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Pharmaceutical and Medicinal Preparations

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I also beg to add that I am prepared to manufacture at short notice any pharmaceutical preparation which physicians may be unable to procure elsewhere.

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Contains **THE ESSENTIAL ELEMENTS** to the Animal Organization—Potash and Lime;

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The **TONICS**—Quinine and Strychnine;

And the **VITALIZING CONSTITUENT**—Phosporous,

Combined in the form of a Syrup, with *slight alkaline reaction.*

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION in America, and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

IN CASES where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

ITS ACTION IS PROMPT, stimulating the appetite, and the digestion, it promotes assimilation, and enters directly into the circulation with the food products.

THE PRESCRIBED DOSE produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of **mental and nervous affections.**

From its exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

Each Bottle of Fellows' Hypophosphites contains 128 doses.

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BELLEVUE HOSPITAL MEDICAL COLLEGE.

CITY OF NEW YORK.

SESSION OF 1882-3.

The COLLEGIATE YEAR in this Institution embraces the Regular Winter Session and a Spring Session. The REGULAR SESSION will begin on Wednesday, September 20, 1882, and end about the middle of March, 1883. During this Session, in addition to four didactic lectures on every week day except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. The SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

FACULTY.

ISAAC E. TAYLOR, M. D.
Emeritus Professor of Obstetrics and Diseases of Women and Children, and President of the Faculty.

FORDYCE BARKER, M. D., LL.D.,
Professor of Clinical Midwifery and Diseases of Women.

BENJAMIN W. McCREADY, M.D.
Emeritus Professor of Materia Medica and Therapeutics, and Professor of Clinical Medicine.

AUSTIN FLINT, M. D. LL.D.,
Professor of the Principles and Practice of Medicine and Clinical Medicine.

W. H. VAN BUREN, M. D., LL.D.,
Professor of Principles and Practice of Surgery and Clinical Surgery.

LEWIS A. SAYRE, M. D.,
Professor of Orthopedic Surgery and Clinical Surgery.

ALEXANDER B. MOTT, M. D.,
Professor of Clinical and Operative Surgery.

WILLIAM T. LUSK, M. D.
Professor of Obstetrics and Diseases of Women and Children, and Clinical Midwifery.

A. A. SMITH, M. D.,
Professor of Materia Medica and Therapeutics, and Clinical Medicine.

AUSTIN FLINT, JR., M. D.,
Professor of Physiology and Physiological Anatomy, and Secretary of the Faculty.

JOSEPH D. BRYANT, M. D.,
Professor of General, Descriptive, and Surgical Anatomy.

R. OGDEN DOREMUS, M. D. LL.D.,
Professor of Chemistry and Toxicology.

EDWARD G JANEWAY, M. D.,
Professor of Diseases of the Nervous System and Clinical Medicine, and Associate Professor of Principles and Practice of Medicine.

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Professor of Ophthalmology and Otology.

EDWARD L. KEYES, M. D.,
Professor of Cutaneous and Genito-Urinary Diseases.

JOHN P. GRAY, M. D., LL.D.,
Professor of Psychological Medicine and Medical Jurisprudence.

FREDERIC S. DENNIS, M. D., M. R. C. S.,
Professor Adjunct to the Chair of Principles and Practice of Surgery.

WILLIAM H. WELCH, M. D.,
Professor of Pathological Aanatomy and General Pathology.

J. LEWIS SMITH, M. D.,
Clinical Professor of Diseases of Children.

JOSEPH W. HOWE, M. D.,
Clinical Professor of Surgery.

LEROY MILTON YALE, M D.,
Lecturer Adjunct on Orthopedic Surgery.

BEVERLY ROBINSON, M. D.,
Professor of Clinical Medicine.

FRANCKE H. BOSWORTH, M. D.,
Professor of Diseases of the Throat.

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WILLIAM H. WELCH, M. D.,
Lecturer on Pathological Histology.

T. HERRING BURCHARD, M. D.,
Lecturer on Surgical Emergencies.

CHARLES S. BULL, M. D.,
Lecturer on Ophthalmology and Otology.

CHARLES A. DOREMUS, M.D., Ph. D., Lecturer on Animal Chemistry.

FEES FOR THE REGULAR SESSION.

Fees for Tickets to all the Lectures, Clinical and Didactic,	$140 00
Fees for Students who have attended two full courses at other Medical Colleges, and for Graduates of less than three years' standing, or other Medical Colleges	70 00
Matriculation Fee	5 00
Dissection Fee (including material for dissection)	10 00
Graduation Fee	30 00

No Fee for Lectures are required of Graduates of three years' standing, or of third-course Students who have attended their second course at the Bellevue Hospital Medical College.

FEES FOR THE SPRING SESSION.

Matriculation (Tickets valid for the following Winter)	$ 5 00
Recitations, Clinics and Lectures,	40 00
Dissection (Tickets valid for the following Winter),	10 00

For the annual Circular and Catalogue, giving regulations for graduation and other information, address Prof. AUSTIN FLINT Jr., Secretary, Bellevue Hospital Medical College.

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FLUID AND SOLID EXTRACTS,

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Prepared from the Stomach of the hog, *Uniform in Strength*, and *free from unpleasant odor and taste.* Ten grains of Saccharated Pepsin, dissolved in one ounce of water, with addition of ten drops of muriatic acid, will completely dissolve 150 grains of coagulated albumen, at a temperature of 100 to 150° F., in 4 to 6 hours.

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SUGAR COATED & GELATINE COATED PILLS,

Comprising all the officinal and other well-known favorite formulæ.

These PILLS are all Prepared with the Utmost Care, under our Immediate Supervision.

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The Quantities and Proportions are Invariably as Represented on the Labels

The Excipients to make the Masses are Carefully Chosen in each Case, to make the Pill Permanently Soluble in the Fluids of the Stomach and Bowels.

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The establishment is under the care of a competent physician of long experience in this specialty, who will spare no pains to produce a perfectly RELIABLE and PURE article, which we are prepared at all times to furnish in FRESH and ACTIVE condition.

Our new method Kine Crusts will be found much superior to the ordinary form, though points are recommended as the most reliable form of virus attainable.

All our Virus is put up in strong, AIR-TIGHT, SEALED PACKAGES, for safe conveyance by mail or express, and will be sent (postpaid if by mail) upon the following terms:—

Fifteen large Ivory Points, well charged on both sides	$2 00
Seven large Ivory Points, well charged on both sides	1 00
Large Ivory Points, less than seven, well charged on both sides, each	25
One Crust, new method, in air-tight Glass Capsule, prepared for immediate use	2 00

Also **Humanized Virus,** from HEALTHY CHILDREN, procured for us by physicians of undoubted reliability.

One Crust from Unruptured Vesicles (one remove from heifer if preferred) $2 00

We will give a fresh supply, in case of failure reported within twenty days for Points, thirty days for Human, and ninety days for Kine Crusts.

Orders by mail or telegraph answered by return train.

Liberal discounts upon large supplies for Cities, Towns and Institutions.

Scarifying Vaccinator. Steel, Nickel Plated. (See Cut.) Each 25 cents.

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In writing us please name this journal.

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N. B.—See our other advertisements in other numbers of this journal.

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Nos. 2 and 95 Selected from one of the best English makers by one of our firm; made expressly for us; warranted accurate, thoroughly seasoned, and very superior. Straight; self-registering; contraction in stem, to prevent loss of index; graduated to one-fifth degree.

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No. 2. In German Silver or in Ebony Case, 3, 3½, 4 and 5 inches long, each	$3 00
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Also, a full assortment of Surgical Instruments.

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See other advertisement above, and in writing please mention this journal.

THE

JEFFERSON MEDICAL COLLEGE

OF PHILADELPHIA.

THE Fifty-eighth Session of the Jefferson Medical College will begin on Monday, October 2d, 1882, and will continue until the end of March, 1883. Preliminary Lectures will be held from Monday, 11th of September.

S. D. GROSS, M. D., LL. D., D. C. L. Oxon., LL. D. Cantab. (Emeritus).
Institutes and Practice of Surgery.

ELLERSLIE WALLACE, M. D.,
Obstetrics and Diseases of Women and Children.

J. M. DA COSTA, M. D.,
Practice of Medicine.

WM. H. PANCOAST, M. D.,
eneral, Descriptive, and Surgical Anatomy.

ROBERT E. ROGERS, M. D.,
Medical Chemistry and Toxicology.

ROBERTS BARTHOLOW, M. D, LL. D.,
Materia Medica and General Theraputics.

HENRY C. CHAPMAN, M. D.,
Institutes of Medicine and Medical Jurisprudence.

SAMUEL W. GROSS, M. D.,
Principles of Surgery and Clinical Surgery.

JOHN H. BRINTON, M. D.,
Practice of Surgery and Clinical Surgery.

WILLIAM THOMSON, M. D..
Professor of Ophthalmology.

The recent engagement of the College hos enabled the Faculty to perfect the system of *Practical Laboratory Instructions*, in all the Departments. Rooms are assigned in which each Professor, with his Demonstrators, instructs the Class, in Sections, in direct observation and hand-work in the Chemical, Pharmaceutical, Physiological, and Patholoical Laboratories. Operative and Minor Surgery, and investigation of Gynæcological and Obstetric conditions on the *Cadaver*, are taught, as also Diagnosis of Disease on the living subject. The experience of the past Session has abundantly proven the great value of this Practacal Teaching,

This course of instruction is *free of charge, but obligatory upon* candidates for the Degree, except those who are Graduates of other Colleges of ten years' standing.

A SPRING COURSE of Lectures is to be given, beginning early in April, and ending early in June. There is no additional charge for this Course to matriculates of the College, except a registration fee of five dollars; non-matriculates pay forty dollars, *thirty-five of which, however, are credited on the amount of fees paid for the ensuing Winter Course.*

CLINICAL INSTRUCTION is given *daily* at the HOSPITAL OF THE JEFFERSON MEDICAL COLLEGE throughout the year by Members of the Faculty, and by the Hos pital Staff.

FEES.

Matriculation Fee (paid once)	$5 00	Practical Anatomy	$10 00
Tickets for each Branch (7) $20	140 00	Graduating Fee	30 00

Fees for a full course of Lectures to those who have attended two full courses at other (recognized) Colleges—the matriculation fee, and..... $70 00

To Graduates of less ten years of such Colleges—the matriculation fee, and..... 50 00

To Graduates of ten years, and upwards, of such Colleges—the matriculatien fee only.

The Annual Announcement, giving full particulars, will be sent on application to

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A Most Valuable Remedy in all Diseases of the Mucous Surfaces requiring an Astringent.

☞ TO PHYSICIANS.—I will take pleasure in forwarding you free a sample bottle sufficient to test fully its merits. A trial only is sufficient to establish its medicinal value.

DIRECTIONS FOR USE.

N. B.—The doses prescribed are for adults, for children the dose must be diminished according to their age.

As an Internal Remedy in Diarrhœa, Dysentery, Night-Sweats, Hemorrhage, or Profuse Expectoration. Mix one part of the extract with five of warm water; let it cool and take a teaspoonsful of the solution every three hours or oftener as the case may require.

For Leucorrhœa and other Vaginal Diseases, dissolve a tablespoonful or two in a pint of warm water and inject twice a day. In obstinate cases a stronger solution should be used.

For Protruding or Itching Piles mix one-fourth of glycerine and apply as often as convenient; Fissure of the Anus, Sores, Ulcers, Burns, or Scalds, the extract should be applied in its full strength.

For Catarrh, dissolve a teaspoonful or two of the extract and a teaspoonful of salt in a pint of warm water and inject into the nostrils with a nasal douche twice a day.

For Sore Throat, dissolve a tablespoonful of the extract in half pint warm water, let it cool, and apply as a gargle repeatedly during the day.

For Gonorrhœa or Gleet, mix one part of the extract with three of water, inject two or three times a day.

For Skin Diseases, the extract should be used in its full strength, locally, and in obstinate cases a warm bath, in which a pint of the extract has been dissolved, should be taken several times a week.

To avoid Staining of Linen the White P. C. should be used.

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*See note p. 64, Profs. VAN BUREN & KEYES on Urinary Organs.

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EMPTY CAPSULES (7 Sizes),



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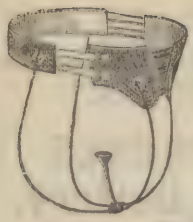
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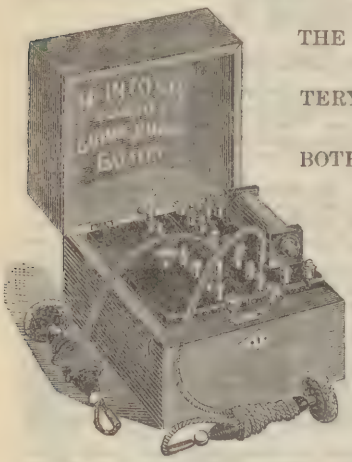
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VOL. X. JULY, 1882. No. 1.

THE NEW ORLEANS MEDICAL AND SURGICAL JOURNAL.

EDITED BY

S. M. BEMISS, M. D.,

W. H. WATKINS, M. D. S. S. HERRICK, M. D.

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TABLE OF CONTENTS

	PAGE.
Original Communications—	
By ROBERT B. S. HARGIS, M. D., The Genius of Medicine—An address	1
By STANFORD E. CHAILLE, A. M. Inundations of New Orleans and their Influence on its Health	20
By J. B. GASTON, M. D., Annual Message of the President	38
Current Medical Literature—	
Antagonism between Typhoid Fever and Pulmonary Tuberculosis: Prevention of the latter by Inoculation with the virus of the former	52
Syphilitic Infection of the Finger in Medical Men	51
Treatment of Syphilis by Potassium Bichromate	54
Nitro Glycerine in Heart Disease	55
The Cure of Hip-Joint Disease	55
The Breeding and Diseases of Elephants	56
A New Method of Embalming Bodies and Preserving Tissues	57
Sexual Abnormalities	58
Quinine	59
Analogues of Ptomaines	60
Night sweets in Phthisis	61
Nitro-Glycerine in Therapeutics	64
Hart on the Propagation of Typhoid, Scarlatina and Diphtheria by Milk	64
Statistics of Consumption	65
Iodide of Potassium in Frontal Headache	66
Treatment of Syphilis	66
Simple Method for the Cure of Ozœna	67
Etiology of Tuberculosis	68
On Percussion of the Skull in the Diagnosis of the Brain	70
The Reduction of Temperature by Cold Bathing on Kibbee's Cot	72
Listerine	72
Iodide of Potassium in Frontal Headache	73
Editorial Department	73
Reviews and Book-Notices	75
Books and Pamphlets received	78
Meteorological Summary—May, 1882	80
Mortality in New Orleans from May 20th, 1882, to June 10th, 1882, inclusive	80

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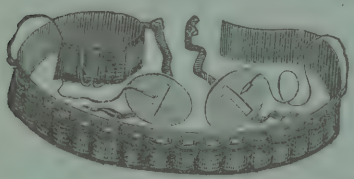
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TABLE OF CONTENTS

PAGE.

Original Communications—

By RICHARD H. DAY, M. D

Review of the Surgical Treatment of President Garfield..... 81

By STANFORD E. CHAILLE, M. D.

Preventive Measures Against Yellow Fever.. 96

By GEORGE H. ROHE, M. D.

Early Joint Affections in Syphilis..... 111

By W. W. WALKER, M. D.

A Complicated Case of Ovariotomy..... 115

By DR. GEORGE W. LEWIS.

Compound Fracture of the Skull..... 119

Correspondence..... 122

PAGE.

Current Medical Literature—

Translations—

Notes on Leprosy..... 126

How to Examine a Sick Child..... 130

On Trichinæ in Salted Meats..... 132

Colony Treatment of the Insane..... 134

The Bacillus of Tuberculosis..... 139

Treatment of Consumption Indicated by the Discoveries of Koch and Others of its Parasitic Origin..... 141

Nitro-Glycerine..... 144

Editorial Department.

Yellow Fever in New Orleans..... 146

Reviews and Book Notices..... 158

Errata..... 159

Meteorological Summary—June, 1882..... 160

Mortality in New Orleans from June 17th, 1882, to July 8th, 1882, inclusive..... 160

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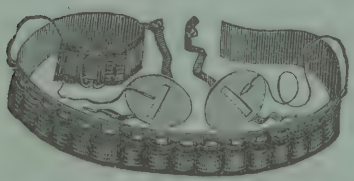
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TABLE OF CONTENTS

PAGE.

Original Communications—

By J. WM. STOKES, M. D.

Bile and Digestion..... 161

By THOMAS LAYTON, M. D.

On the Transmission and Transformation of Nervous Diseases through Heredity..... 173

By STANFORD E. CHAILLE, M. D.

Yellow Fever, or "Yellow Jaundice" in New Orleans in 1882..... 194

By J. P. DAVIDSON, M, D.

Perityphlitis..... 206

Current Medical Literature—

Icterus Neonatorum..... 216

Homœopathy as Professed and as Practiced..... 219

PAGE

The Parasite of Leprosy..... 220

Formulary..... 221

Calcium Sulphide in Suppuration..... 223

Insanity and Divorce..... 223

Chloral and Tincture of Iodine..... 224

Sulphurous Acid in Tuberculosis..... 225

Gallo-Roman Remains..... 225

Rheumatism and Syphilis..... 225

Pelletierine, a Reliable Remedy against Tapeworm..... 226

Narcotism in Infancy..... 226

Editorial Department.

Yellow Fever in New Orleans in 1882..... 227

Reviews and Book Notices..... 234

Meteorological Summary—July, 1882..... 240

Mortality in New Orleans from July 15th, 1882, to August 12th, 1882, inclusive..... 240

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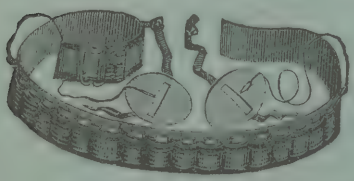
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TABLE OF CONTENTS.

PAGE

Original Communications—

By THOMAS LAYTON, M. D.,

Extracts from an Old History of Louisiana—Translation 241

By C. J. BICKHAM, M. D.,

Phlegmasia Alba Dolens 259

By LUTHER SEXTON, M. D.,

Some Remarks on a Peculiar Type of Typhoid Fever 263

By M. R. RICHARD, M. D.,

Medicated Gelatin Preparations and their Uses 273

By FERDINAND LASCAR,

The Relative Therapeutic Value of Phosphates, Hypophosphites and Lactophosphates 277

By THOS. J. HENDERSON, M. D.,

The Diagnosis of Yellow Fever—A Suggestion. Correspondence 281

Current Medical Literature—

By RUDOLPH MATAS, M. D.,

The Inutility of Treating Yellow Fever with the Salicylate of Sodium or Carbolic Acid, if the Therapeutic Action of these Drugs is to be based purely upon their Antiseptic Properties—Translation 284

By Dr. JOHN DELL 'ORTO,

Injections of Solutions of Iron and Salts into the Peritoneal Cavity of Animals and Man.. 289

PAGE

A Case of a High Temperature in a Healthy Young Lady 291

Syphilitic Polyuria 292

Cafeine in the Treatment of Strangulated Hernia—Translations 293

Formulary 293

Sulphurous Acid in Typhoid Fever 294

To be Copied into the Practioner's Note Book. 295

Virchow on Soups and Broths 295

Gout and an Animal Diet 296

Some Points in Malarial Fever 296

Detection of Gall-Stones by the Exploring Needle 297

The Drug Store of the Future 300

The Noble Forehead 302

An Early Symptom of Pregnancy 303

Who Introduced Nitro-Glycerine? 304

Salicylic Acid 305

On the Use of Ipecacuanha During Labor 306

Lemons, the Elixir of Life 307

Micro-Organisms and Diseases 308

Post Graduate College 308

Pruritus Ani 309

Prolonged Gestation 309

A New Disease 309

Editorial Department.

Ship Island Quarantine Station 310

Yellow Fever in New Orleans 311

Reviews and Book Notices 314

Books and Pamphlets Received 319

Meteorological Summary—August, 1882 320

Mortality in New Orleans from August 12th, 1882, to September 9th, 1882, inclusive ..... r 20

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TABLE OF CONTENTS

PAGE

Original Communications —

By S. M. BEMISS, M. D.

Chapters from Report of Yellow Fever Commission of 1878 321

Current Medical Literature—

Chronic Cystitis of Ten Years' Duration, following Stricture cured by one injection of Solution of Nitrate of Silver 357
Irrigation of the Colon 362
What Should be Done with Insane Criminals .. 364
Grand Fun, Pigeon Shooting and Vivisection .. 366
Small Doses Frequently Repeated 367
Bandaging the Arm as a Substitute for Blood- [illegible] ..... 3[illegible]
Foreign Bodies in the Air-Passages 368
Two hundred and fifty cases of Malaria Treated with the Tincture of Iodine 368
Enlarged Prostate 369
A New Treatment of Tape Worm 370
The Eruptions Caused by Quinine 370
Ligation of Umbilical Cord 371
The Duration of Isolation of Subjects of Contagious Diseases 372
Diphtheria 373
Uræmic Convulsions and Coma Successfully Treated by Hypodermic Injections of Pilocarpin, Chloral, and Benzoic Acid 373
Subcutaneous Injection of Ether in Pneumonia 374
The Hygienic Value of the Electric Light 375

PAGE

Poisons as Used by the Medical Profession and Abused by the Public 375
Subcutaneous Injection in Puerperal Convulsions 379
Cure of Varicocele by Intravenous Injection of Chloride ..... [illegible]
Treatment of Chronic Dysentery by large Enemata of Nitrate of Silver 380
Treatment of Gonorrhœa by Injections of Sulphurous Acid diluted with water 381
The Administration of Chloroform 381
Treatment of Infantile Diarrhœa by Powdered Charcoal 382
A Marvel of Surgery 383
Death of Prof. F. M. Balfour 383
Morphia Hypodermically as an Adjuvant to Chloroform 384
Stchegloff on Faradisation of the Spleen in Intermittent Fever 384

Editorial Department.

Army Medical Museum and Library 385
Supplementing National Board of Health Bulletin 386
Meeting of the American Public Health Association at Indianapolis 387
Reviews and Book Notices 392
Books and Pamphlets Received 398
Meteorological Summary—September, 1882 400
Mortality in New Orleans from September 16th, 1882, to October 7th, 1882, inclusive 400

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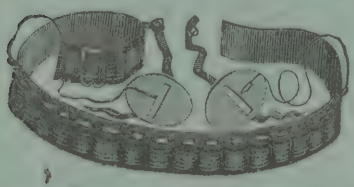
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TABLE OF CONTENTS

PAGE.

Original Communications—

By S. S. HERRICK, M. D.,

The Responsibility of Criminal Lunatics..... 401

By FRANK E. ARTAND, Resident Student, Charity Hospital.

Amenorrhœa..... 408

By L. E. BORCHEIM, M. D.,

A Case of Hepatic Abscess..... 412

By T. A. COOK. M. D.,

Observations upon Congestive Fever..... 416

Current Medical Literature—

Sodium Nitrite in the Treatment of Epilepsy.. 438
A Case of Old Hysterical Contracture suddenly Cured by the Administration of "Fulminant Pills" (Mica Panis)..... 441
Vaccination vs. Protective Inoculation..... 442
Treatment of Acute Dysentery with Aconite.. 443
Minimum Doses of Iodine Potassium in Frontal Headaches..... 443
Boracic Acid Ointment..... 443
Treatment of Phthsis..... 444
Infantile Convulsions..... 445
Treatment of Yellow Fever by the Permaganate of Potash..... 445
Stumous Opthalmia..... 446
Cornil on Hypodermic Injections of Mercury in Syphilis..... 446
Treatment of Hydrocele by the injection of Pure Carbolic Acid..... 447
Iodoform in Diabetes..... 448
Subcutaneous Injection of Ether in Pneumonia 449
Uremia..... 449
Cause of Dark Complexion of Chicago Ladies.. 449
Small Pox in Birds..... 450
Cotton Seed in Spasmodic Croup..... 450
Oleatas in Skin Disease..... 451
A Case of Sciatica Promptly and Permanently Relieved by the Hypodermic Injection of Ice-Cold Water..... 451
Treatment of Puerperal Mastitis by Iodide of Lead Ointment..... 452

PAGE.

The Treatment of Croup with "Hydrargyri Sulphas Flava"..... 453
Hydrobromic Acid..... 454
Use of Nitrite of Amyl in Parturition..... 454
Carbonate of Ammonia as a Stimulant..... 454
Inhalation of Medicated Vapors in Diseases of the Respiratory Organs..... 455
The Administration of Chloroform..... 456
Alcohol..... 457
Incision of the Trigone..... 459
Oil of Peppermint in Zona..... 459
American Origin of Syphilis..... 460
Treatment of Acne Rosacea..... 461
To hasten the Action of Quinine..... 462
The transmission of Syphilis..... 462
Ether-inhalations in Angina Faucium..... 463
Hystero-Laparotomy During Pregnancy from a False Diagnosis..... 463
Ergot in Typhoid Fever..... 464
Cholera Infantum..... 464
Nitro-Glycerine in the Treatment of Heart Disease and Puerperal convulsions..... 465
Tepid Water and Solution of Quinine in Chronic Cystitis..... 465
The Use of Iodoform in Tubercular Affections 466
Willow Leaves in Ague..... 467
Hydrophobia from Fear..... 467
Graves' Disease..... 467
Intussusception in Infants..... 468
Idopathic or Pernicious Anemia, Associated with Jaundice..... 469
Another Malpractice Suit..... 470
Sir Thomas Watson, Bart..... 471
Philadelphia Hospitals..... 471
Albuminuria in Phthisis..... 472
Fissura Ani..... 472
Reckless Midwifery..... 472
A New Sign of Pregnancy..... 473

Editorial Department.

Change of Editors..... 473
Correspondence—Ipecacuanha During Labor.. 475
Reviews and Book Notices..... 477
Books and Pamphlets Received..... 479
Meteorological Summary—October, 1882..... 480
Mortality in New Orleans from October 14th, 1882, to November 4th, 1882, inclusive..... 480

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TABLE OF CONTENTS

PAGE.

Original Papers —

By JOHN GODFREY, Passed Asst. Sgn. U.S.M.H.S. Anniversary Address before the New Orleans Medical and Surgical Association, December 2, 1882. 481

By JOHN B. ELLIOTT, M. D. Exercise as a Physiological Necessity 498

By W. H. WATKINS, M. D. Varicocele 508

By JOSEPH HOLT, M. D. The Ethical Problem 513

Translations —

Employment of Naphtol in Diseases of the Skin 523

Batracosis 525

Measles in the Adult—Differential Diagnosis—Simple Roseola — Variola — Prognosis, and Complications 527

The Simplest Means of Effecting the Healing of Wounds by Agglutination Without Drainage Tubes 530

Editorial Department.

Salutatory 536

Female Physicians 538

PAGE.

Reports of Cases —

Case Illustrating Antagonism of Medicines 541

Danger of Using Cooking Utensils of Galvanized Iron; Iron Dipped in a Bath of Melted Zinc 542

Poisoning by an Overdose of Nux Vomica 543

Correspondence —

The Bacillus Tuberculosis 544

Reviews and Book Notices 547

Publications Received 545

Medical Items —

Treatment of Erysipelas 555

The Treatment of Erysipelas 556

Diagnostic Importance of Rectal Examination in Stone of the Bladder 557

Dislocation of the Astragalus 557

A New Antiseptic 558

Acute Coryza 558

Sir James Paget 558

Guiteau's Brain 559

Another Substitute for Cod Liver Oil 559

Fibroma of Renal Capsules 559

Amende Honorable 559

Meteorological Summary—November, 1882 560

Mortality in New Orleans from November 11th, 1882, to December 9th, 1882, inclusive 560

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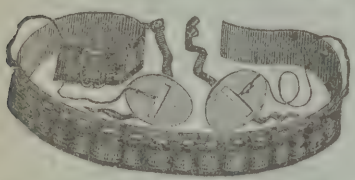
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Certificate of Composition and Properties of Lactopeptine by Prof. Attfield Ph. D., F. R. S., F. I. C., F. C. S., Prof. of Practical Chem. to the Pharmaceutical Society of Great Britain.

LONDON, May 3, 1882.

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TABLE OF CONTENTS

PAGE

Original Papers —
By RUDOLPH MATAS, M. D.
Beriberi 561
By I. L. CRAWCOUR, M. D.
The Therapeutics of Arsenic 573

Translations —
Treatment of Varicose Ulcers of the Leg by Levigated Sub Nitrate of Bismuth 583
The Anæsthetic and Diuretic Action of the Extract of Corn Silk 587
Poisoning by Phosphoretted Matches—Cure.. 589
Proceedings of the Berlin Medical Society. Meeting November 29th, 1882 592

Editorial Department.
"The Ethical Problem." 595

Reports of Cases —
Gunshot Wound of Lung and Spinal Cord 601
Post Partum Pain 603
Ante-Partum Hemorrhage 604
Case of Retained Fœtal Head, separated from the Body during Labor 605
On Otomycosis Aspergillina 607
Impregnation before the Menstrual Epoch.... 609

Reviews and Book Notices 610

Reports of Proceedings of Societies.
New Orleans Medical and Surgical Association, Dec. 23d, 1882, and Jan. 6th, 1883....617-620

PAGE.

Publications Received 625

Medical Items —
Three Successful Cases of Sponge-grafting: with remarks 625
On a Modification of Sponge-grafting 628
To destroy the Syphilitic Virus by Excision of the Initial Lesion, ... 631
The Internal Administration of Iodoform in Constitutional Syphilis 631
Successful Ligation of the Common Carotid with the Fleshy Carbolized Sciatic Nerve of a Calf 633
Boiler-maker's Deafness and Hearing in a Noise 633
Reliquet's Injection for Chronic Cystitis 634
Autogenesis of Cysticerci 634
Treatment of Puerperal Mastitis by Iodide of Lead Ointment 635
Bacillus Tuberculosis 636
Treatment of Oxyuris Vermicularis and Lumbricoid Worms in Infants 636
The Louisiana State Medical Society 636
The Epidemic of Breakbone Fever 637
Report of Special Commissioner—Color-Blindness 637

Medical News 637

Died—Dr. Warren Stone 639

Mortality in New Orleans from December 16th, 1882, to January 13th, 1883, inclusive 560

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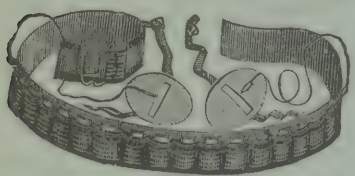
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TABLE OF CONTENTS

PAGE

Original Papers —
By G. FARRAR PATTON, M. D.
The Fumigation and Disinfection of Vessels and Cargoes, with Special reference to the Mississippi River Quarantine 641

By DR. JOHN DELL'ORTO.
Professor DeRenzi's Treatment of Cirrhosis of the Liver, and of Bright's Disease 648

By H. D. SCHMIDT, M. D.
On the Classification of Bacteria 652

Translations —
Rabies 656
Poisoning by Carbolic Acid 658
A Brief Digest of Dr. Huchard's Clinical Lectures on Visceral Hysteria, at the Tenon Hospital, Paris 659
Some New Remedies which reduce the Fever Temperature to Normal 665
Treatment of Hysteria 666

Editorial Department.
The Classics *versus* Science 667
The New Pharmacopœia 672

Reports of Cases —
The Post-Mortem Examination of the Body of Mrs. Ella McAlexander 673
Gallstones Successfully Treated with Olive Oil, 676
Parotitis Accompanied with Orchitis Eventual Suppuration and Atrophy of Testicle 678
Intermittent Diarrhœa Cured by Quinine 680

Reviews and Book Notices 681

Publications Received 694

Reports of Proceedings of Societies.
Attakapas Medical Association 695

Medical Items —
Expulsion of Four Hundred and Forty-One Lumbricoid Worms within Thirty-Four Days 702

PAGE.

Sir William Gull on Scientific Medicine in General Practice 704
Vicarious Menstruation 705
Tubercle Bacillus and Phthisis 706
The Use of the Mullein Plant in the Treatment of Pulmonary Consumption 708
Coffee as an Antidote to Alcoholism 709
Pasteur and Koch 710
The Newly Discovered Prophylactic Vaccine for "Rouget; or Pneumo-enteritis of the Pig 710
Hæmophilia 711
Journal of the American Medical Association, 712
An Army Medical Board 712
Treatment of Dysentery 713
The Hammond Prize 713
Hay Fever 714
Hydatidiform Disease of the Chorion 714
Gaillard's Journal 714
Writer's Cramp 714
The Mortality Referable to Alcohol 715
Indian Enteric Fever 715
Urinary Abscess 716
Nocturnal Enuresis Treated by Voltaic Alternatives 717
Compound Fracture of the Femur, Erysipelas, Pyæmia; Amputation of the Thigh; Subsequent Exarticulation at the Hip; Complete Recovery 717
Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine-Hospital Service, October 1st to December 31st, 1882 718
The Louisiana State Medical Society 719
International Medical Congress 719

Meteorological Summary—January, 1883 720

Mortality in New Orleans from January 20th, 1883, to February 10th, 1883, inclusive 720

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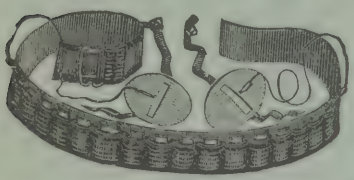
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Certificate of Composition and Properties of Lactopeptine by Prof. Attfield Ph. D., F. R. S., F. I. C., F. C. S., Prof. of Practical Chem. to the Pharmaceutical Society of Great Britain.

LONDON, May 3, 1882.

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TABLE OF CONTENTS

PAGE.

Original Papers —
By STANFORD E. CHAILLÉ, M. D.
Yellow Fever Prevalence in Havana 721
By J. McF. GASTON, M. D.
Observations on the Etiology, Pathology and Treatment of Rheumatism 724
By DR. JOHN DELL'ORTO.
On Albuminuria and Nephritis 737
By R. SAUVAGE, M. D.
Report of a Case of Tubercular Meningitis—Treatment and Recovery 739

Translations —
Hysteria in Males 749
Peculiar Reflex Phenomena Due to Uterine Flexures and Deviations. Their Successful Treatment by a peculiarly constructed Ring-Pessary 750

Editorial Department.
McDaniel's Method of Artificial Respiration .. 753
Small Pox 755
"Tracing Contagion" 757

Reports of Cases —
Seven Cases of Reflex Affections of Genito-Urinary Origin 759

PAGE.

Foreign Body in Larynx. Tracheotomy—Recovery 765

Correspondence —..... 769

Reviews and Book Notices 771

Publications Received 778

Medical Items —
The Sterility of Women 779
Treatment of Aggravated Hysteria and Certain Allied Forms of Neurosthenic Disease.. 789
The Indications for the Use of Digitalis 792
A Simple Means of Checking Pulmonary Hemorrhage with Shawl Straps 795
Ulcers—Their Treatment with Transplantation of Raw Meat 796
The Use of Iodoform in the Treatment of Diseases of the Eye 798
Next Annual Meeting of the Association of American Editors 799
Syphilis Spread by a Midwife 799

Meteorological Summary—February, 1883 800

Mortality in New Orleans from February 11th, 1883, to March 17th, 1883, inclusive 800

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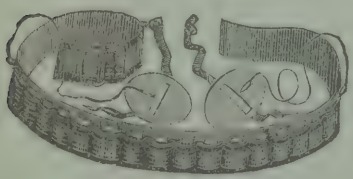
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TABLE OF CONTENTS

PAGE.

Original Papers —

By THOMAS LAYTON, M. D.

Anniversary Address Delivered before the Orleans Parish Medical Society, on Friday, March 30th, 1883. 801

By S. S. HERRICK, M. D., Secy. of Board of Health, State of Louisiana.

Some Debatable Points in Small-Pox and Vaccination. I. Origin of Small-Pox. II. Comparative Merits of Bovine and Humanized Vaccine Virus. III. Compulsory Vaccination. 810

By D. M. CLAY, M. D.

Laceration of the Cervix Uteri, its Causes, Pathology, Diagnosis and Treatment. 819

Translations —

Syphilitic Phagedena. 829
Some Points in the History of Rabies; its Curability. 832
Surgical Treatment of Epithelioma of the Rectum. 835

PAGE.

Editorial Department.

The Relation of Syphilis to Rickets. 838
The Small-Pox Problem. 843
The State Medical Society. 848
The Sanitary Council of the Mississippi Valley 850
Pharmaceutical Exhibition. 853
Charity Hospital—Election for Officers for 1883-4. 854

Reports of Cases —

Analysis of Nine Cases of Cerebro-Spinal Meningitis, Observed in the Charity Hospital, New Orleans. 855
Two Cases of Leprosy. 861

Reviews and Book Notices. 864

Reports of Proceedings of Societies.

Fifth Annual Meeting of the Louisian State Medical Society. 873
Annual Commencement of the Medical Department of the University of Louisiana. 889

Publications Received. 891

Meteorological Summary—March, 1883. 892

Mortality in New Orleans from March 24th, 1883, to April 21st, 1883, inclusive. 892

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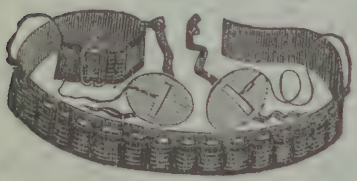
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Lactopeptine having been prescribed for some of my friends during the past five years—apparently with very satisfactory results—its formula, which is stated on the bottles, and its general characters, have become well known to me. But recently, the manufacturer of this article has asked me to witness its preparation on a large scale, to take samples of its ingredients from large bulks and examine them and also mix them myself, and to prepare *Lactopeptine* from ingredients made under my own direction, during all this with the object of certifying that *Lactopeptine* is what its makers profess it to be, and that its ingredients are in quality the best that can be obtained. This I have done, and I now report that the almost inodorous and tasteless pulverulent substance termed *Lactopeptine* is a mixture of the three chief agents which enable ourselves and all animals to digest food. That is to say, *Lactopeptine* is a skillfully prepared combination of meat-converting, fat-converting, and starch-converting materials, acidified with those small proportions of acid that are always present in the healthy stomach; all being disseminated in an appropriate vehicle, namely, powdered sugar of milk. The acids used at the factory—lactic and hydrochloric—are the best to be met with and are perfectly combined to form a permanent preparation: the milk sugar is absolutely pure; the powder known as "diastase" or starch-digesting (bread-, potato-, and pastry-digesting) material, as well as the "pancreatine," or fat-digesting ingredients, are as good as any I can prepare; while the pepsin is much superior to that ordinarily used in medicine. Indeed, as regards this chief ingredient, pepsin, I have only met with one European or American specimen equal to that made and used by the manufacturer of *Lactopeptine*. A perfectly parallel series of experiments showed that any given weight of acidified pepsin, alone, at first, acts somewhat more rapidly than *Lactopeptine* containing the same weight of the same pepsin. Sooner or later, however, the action of the *Lactopeptine* overtakes and outstrips that of pepsin alone, due, no doubt, to the meat-digesting as well as the fat-digesting power of the pancreatine contained in the *Lactopeptine*. My conclusion is that *Lactopeptine* is a most valuable digesting agent, and superior to pepsin alone.

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For further information, address

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*For further information upon these points see circular.

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TABLE OF CONTENTS

PAGE.

Original Papers—

By STANFORD E. CHAILLÉ, A. M., M. D.

Inundations in Louisiana—Their Influence on Health 893

By R. H. DAY, M. D.

Surgical Treatment of Wounds 919

Annual Report of 1883 to the Louisiana State Medical Society of its Standing Committee on State Medicine 929

Translations—

Anæsthesia in Obstetrics 955

A Case of Hypertrophic Cervical Pachymeningitis 960

Abstract of the Views of Prof. Henoch on Diphtheria, delivered before the Medical Society of Berlin 962

PAGE.

Editorial Department.

State Medicine 966
Dr. J. Dickson Bruns 969

Reports of Cases—

Case of Enormous Abscess of the Liver 969

Publications Received 974

Current Medical Literature—

A New Disease. Friedreich's Disease 974
On the Use of Anæsthetics During Labor 976
Cerebral Automatism 977
Treatment of Warts 978
Impenforate Hymen Persistent in Labor 979
The Use of Naphtol for Local Sweating 979

Meteorological Summary—April, 1883 980

Mortality in New Orleans from April 28th, 1883, to May 19th, 1883, inclusive 980

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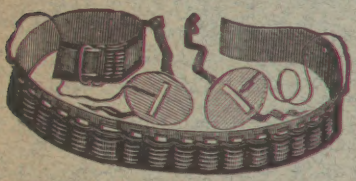
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TO THE MEDICAL PROFESSION.

LACTOPEPTINE

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